

1 UNITED STATES DISTRICT COURT

2 SOUTHERN DISTRICT OF TEXAS

3 HOUSTON DIVISION

4 EXTREME TECHNOLOGIES, LLC,

5 Plaintiff,

6 VS.

7 STABIL DRILL SPECIALTIES LLC,

8 Defendant.

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.  
Civil Action  
No. H-19-CV-1977  
.  
Houston, Texas  
May 4, 2022  
9:24 a.m.  
.

9 . . . . .

10 TRANSCRIPT OF PROCEEDINGS  
11 BEFORE THE HONORABLE LYNN N. HUGHES  
12 MARKMAN HEARING

12 APPEARANCES:

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PROCEEDINGS RECORDED BY STENOGRAPHIC MEANS,  
TRANSCRIPT PRODUCED FROM COMPUTER-AIDED TRANSCRIPTION

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1 PROCEEDINGS

2 May 4, 2022

3 THE COURT: As I understand it, there's a modest  
4 divergence of views about the temperature in here. This is one  
09:23:56 5 of my crowning accomplishments, to get it this warm. When it's  
6 cold, it's colder. When it's warm, it's colder. So, if you  
7 think you're going to faint, go out on the terrazzo so it's  
8 easier to clean up.

9 I haven't seen you-all in a while or them-all.

09:24:23 10 MS. PARTRIDGE: Good morning, your Honor.

11 MR. RALEY: It's good to be back --

12 MS. PARTRIDGE: It's great to see you.

13 MR. RALEY: It's good to be back in court.

14 MS. PARTRIDGE: It is.

09:24:32 15 THE COURT: Is she going to help you?

16 MS. PARTRIDGE: Yes, your Honor. This is Ms. Caitlin  
17 Dean. She is a fourth-year associate at our law firm, and she  
18 is going to argue part of the hearing today.

19 THE COURT: Okay. See, sometimes lawyers knowing  
09:24:46 20 their aghast importance don't mention their paralegals or  
21 secretary, whoever is helping them; and I don't like that.

22 MS. PARTRIDGE: Well, she's going to argue --

23 THE COURT: She's --

24 MS. PARTRIDGE: She's an associate. I can tell you  
09:25:05 25 the name of my assistant. She helped me, as well; but she's not

1 here today.

2 THE COURT: Well, you tell her I said thank you.

3 MS. PARTRIDGE: She's wonderful. I'm very lucky to  
4 have her.

09:25:17 5 THE COURT: Do you need help?

6 MR. RALEY: I need help daily, your Honor.

7 THE COURT: All right.

8 MS. PARTRIDGE: I do want to say this is one of her  
9 first times that she'll argue in court. She's done it one other  
09:25:23 10 time. So, this is really a big day for her. So, be nice to  
11 her. You can be mean to me.

12 THE COURT: I'm not nearly as bad as she says.

13 All right. So, my proposal for today is -- it's  
14 sort of old-fashioned. You talk, they talk, you talk a little  
09:25:56 15 bit less, and then you talk a little bit less until you've  
16 thoroughly confused me and --

17 MS. PARTRIDGE: We had an agreement, if it it's okay  
18 for your Honor, that because Mr. Raley and Mr. Bowick represent  
19 the plaintiffs that they would start with a short introduction  
09:26:19 20 -- or maybe a long introduction but introduction; and we would  
21 do a short introduction; and then, we would go one after the  
22 other on the two terms at issue today.

23 MR. RALEY: Here's what -- that's not exactly -- I  
24 think that because -- I don't want to get into the argument.  
09:26:37 25 Because the terms -- one is "cutting blade" and the other is

1 "cutting teeth" and your definition kind of morphs them, it  
2 would be better to talk about them at the same time rather than  
3 one at a time.

4                   There are a couple of options, whichever your  
09:26:52 5 Honor tells us what to do. It's your court. One is we can just  
6 present our case and sit down and be quiet and let them present  
7 theirs. The other is we could go back and forth. I can  
8 introduce. Mr. Bowick has a tutorial. They probably have a  
9 tutorial. I can talk about the claim terms. They can talk  
09:27:09 10 about the claim terms.

11                   THE COURT: You're going to introduce him?

12                   MR. RALEY: Excuse me, your Honor?

13                   THE COURT: You're going to introduce him?

14                   MR. RALEY: I mean, I was going to introduce the case.

09:27:16 15                   THE COURT: We've met each other a lot.

16                   MR. RALEY: And so, there's two ways: Either we can  
17 make our complete presentation and sit down and let them do  
18 theirs or we can go back and forth with tutorials, back and  
19 forth with claim term discussion, and back and forth -- our  
09:27:31 20 final thing is the specification.

21                   THE COURT: Well, you brought this suit. Which would  
22 you prefer?

23                   MR. RALEY: I would prefer to just to -- to let us  
24 make our presentation and then sit down and let them make  
09:27:41 25 theirs.

1 MS. PARTRIDGE: That's not what we had talked about  
2 originally; but we're happy to do that, your Honor. We'll trade  
3 off. We had it divided up.

4 MR. BOWICK: I don't know -- we talked about different  
09:27:51 5 options. I don't know if we ever agreed on them.

6 THE COURT: Shh.

7 MS. PARTRIDGE: That's okay. That's fine. We'll do  
8 whatever you guys want.

9 THE COURT: One at a time for each side.

09:28:00 10 MS. PARTRIDGE: Yeah. That's fine. I'm in agreement  
11 with whatever. We were going to trade off on claim terms. So,  
12 as long as we can trade off on those claim terms.

13 THE COURT: You can trade off on anything.

14 MS. PARTRIDGE: Yeah. She keeps me in line, your  
09:28:16 15 Honor.

16 THE COURT: And I know that there are some judges that  
17 have these rules that if you talk that's all you get. I mean,  
18 they have all kinds of quirky rules. But with reasonable order  
19 and civility, one way or the other everybody is going to talk.

09:28:31 20 So, since they brought the suit, I'm going to let  
21 them do it, do the complete case.

22 MS. PARTRIDGE: Thank you, your Honor.

23 THE COURT: And then, Ms. Dean.

24 MS. PARTRIDGE: Okay.

09:28:45 25 MR. RALEY: We have --

1 MR. BOWICK: Your Honor, we have some slides. May I  
2 approach to -- here's one for you and one for your clerk.

3 MS. PARTRIDGE: Thank you.

4 THE COURT: Mr. Raley.

09:29:21 5 MR. RALEY: Yes, your Honor.

6 I'm John Raley; and together with Bobby Bowick,  
7 we represent Extreme Technologies, LLC, in this patent  
8 infringement lawsuit against Stabil Drill Specialities, LLC.

9 We are here on a claim construction hearing under  
09:29:40 10 *Markman* regarding two claim terms on Extreme's patented reamers:  
11 first, "cutting blade"; second, "cutting teeth." Extreme has  
12 always maintained that these terms should be given their plain  
13 and ordinary meaning as the law says is supposed to happen most  
14 of the time.

09:30:02 15 Until recently, Stabil Drill agreed with this  
16 position. If you could look at the second slide, your Honor --  
17 and I could maybe in my presentation track along with you the  
18 slides -- the one with the number 2 at the bottom, there are a  
19 couple of quotes from Stabil Drill's motion for summary judgment  
09:30:23 20 filed on January 23, 2020.

21 They say, The primary claim term at issue was  
22 'cutting blade.' Stabil Drill maintains this term does not  
23 require construction because clarification is not needed to  
24 explain what the patentee meant by the use of the claim term.

09:30:40 25 And then, they also say in their motion for

1 summary judgment, Anyone, not just a person of ordinary skill in  
2 the art, can easily understand the meaning of the claim term  
3 'cutting blades.' They are blades that cut.

4 That is exactly the plain and ordinary meaning  
09:30:53 5 that we are currently submitting. At one time, they agreed with  
6 it. They were arguing in their motion for summary judgment that  
7 their upper reamers, tungsten-carbide rounded, domed inserts,  
8 somehow do not cut earth when spun rapidly down hole.

9 THE COURT: Go a little slower. The court reporter is  
09:31:17 10 fragile.

11 MR. RALEY: I apologize, your Honor. I will slow  
12 down.

13 Stabil Drill claimed in summary judgment that  
14 their upper reamer, which has tungsten-carbide rounded, domed  
09:31:32 15 inserts -- that's one of the hardest substances known to man --  
16 does not cut earth when spun rapidly down hole. They -- there  
17 were summary judgment evidence. They were proven wrong and lost  
18 their motion for summary judgment. It is only now, after they  
19 lost their summary judgment, that Stabil Drill contends for the  
09:31:52 20 first time that we should have a claim construction. So, we are  
21 here.

22 If you look at page 3, these are the claim terms  
23 to be construed: "cutting blade" and "cutting teeth."  
24 Plaintiff's construction is the plain and ordinary meaning, A  
09:32:13 25 blade that cuts earth when the reamer is rotated while drilling



1 a hole. "Cutting teeth," same thing, plain meaning: Teeth that  
2 cut earth when a reamer is rotated while drilling a well hole.

3               Stabil Drill is proposing to construe the terms  
4 as having a different shape and a different geometrical  
09:32:36 5 orientation than Stabil Drill's tool so that they can argue that  
6 they don't infringe.

7               So, that's what we'll be discussing today. With  
8 the Court's leave, the order of presentation I recommend is  
9 Mr. Bowick will provide a technology tutorial showing why our  
09:32:57 10 reamer is so important. After that, I will discuss the claim  
11 terms and our proposed construction. And finally, Mr. Bowick  
12 will show that our construction is correct in light of the  
13 specification and the file history.

14               So, Mr. Bowick, you have the floor, with the  
09:33:11 15 Court's leave, for the tutorial; and then, I will come back to  
16 talk about the claim terms and our proposed construction.

17               Thank you, your Honor.

18               THE COURT: Thank you.

19               MR. BOWICK: Thank you, your Honor.

09:33:20 20               This case is about reamers. The Court's very  
21 familiar with lots of oil tool technology from previous  
22 experience in this court. Extreme --

23               THE COURT: I had some experience in the field, too.

24               MR. BOWICK: Yes, sir.

09:33:33 25               So, Extreme relies on multiple oilfield

1 dictionaries as well as regular Merriam-Webster's and  
2 dictionaries that define what a reamer is. A reamer reams.  
3 Reaming is cutting a hole bigger. It doesn't make a hole like a  
4 bit, it makes the hole larger.

09:33:49

5 Now, one thing that is consistent with all these  
6 dictionaries is it says, A reamer is defined as a drilling tool  
7 for enlarging, stabilizing, straightening, and smoothing the  
8 bore hole. Now, a reamer is usually run behind the drill bit to  
9 open the hole to a larger gauge than the drill bit actually

09:34:10

10 does.

11 What's interesting here in this case is  
12 stabilizing the bit is keeping -- because the drill bit is  
13 larger than the drill pipe, you want to keep that drill pipe  
14 close to the center of the hole so your bit doesn't start  
15 wobbling in the wrong direction.

09:34:24

16 So, because of the blades that extend outside the  
17 body of the reamer, it helps to centralize that, which in the  
18 oilfield is called stabilizing. So, if you look at these  
19 dictionaries, a reamer reams. It also stabilizes, and it also  
20 cuts.

09:34:45

21 Now, Dr. Hyne's Dictionary of Petroleum  
22 Exploration, Drilling, and Production says that some reamers  
23 may have teeth that are sharp or flat or inserts. As you'll  
24 see --

09:34:59

25 THE COURT: What was the last one?

1 MR. BOWICK: Or inserts.

2 THE COURT: Inserts.

3 MR. BOWICK: And you'll see that they sort of define  
4 inserts sometimes as these rounded domes. So, you can have a  
09:35:07 5 blade; and sometimes, the blade can have teeth on it. That's  
6 just the plain and ordinary meaning from the dictionary.

7 Now, if you look at Slide 5, I provide  
8 definitions of what a stabilizer is. The reason for that is,  
9 since the beginning of this case, Stabil Drill has argued that  
09:35:28 10 its second reamer section -- they call it the reamer section --  
11 isn't a reamer at all. It's just a stabilizer. It doesn't cut,  
12 it just stabilizes.

13 Well, if you look at these ordinary meanings --  
14 these aren't my definitions. These aren't my client's  
09:35:46 15 definitions. These are petroleum dictionaries. This is  
16 University of Texas Petroleum Extension Service. This is Dr. --  
17 Dr. Hyne's Drilling and Exploration.

18 But what the definition of a stabilizer is is it  
19 stabilizes and it reams, also. The definition of a stabilizer  
09:36:07 20 is a stabilizer also reams. So, in the context of trying to  
21 say, Oh, it's a reamer; no, it's a stabilizer, reamers ream and  
22 stabilizers -- and according to the ordinary meaning, a  
23 stabilizer stabilizes and also reams. They have almost the same  
24 structure and do the same thing down hole.

09:36:29 25 So, it doesn't really matter what Stabil Drill

1 wants to put on its upper reamer and call it a stabilizer.  
2 According to the ordinary meaning of stabilizers, they ream,  
3 also.

4                   If you look at Slide 6, Mr. Raley already talked  
09:36:43 5 about rotating down hole. Well, how fast do reamers rotate when  
6 they ream? Well, if we look at Stabil Drill's own documents,  
7 they say a reamer is rotated at 60 to 240 RPMs. That's  
8 rotations per minute. That's how fast --

9                   THE COURT: Give me that number again.

09:37:00 10                  MR. BOWICK: 60 to 240 RPMs.

11                  THE COURT: All right. Would you twist that  
12 microphone in front of you, please.

13                  MR. BOWICK: Yes, sir. I'll speak up a little louder,  
14 too.

09:37:10 15                  THE COURT: That will help, but it's cheap government  
16 equipment.

17                  MR. BOWICK: So, the drill string is rotated normally  
18 by a top drive which is a drill that's on the derrick; and it  
19 rotates the drill string between 60 and 240 RPMs so they can  
09:37:31 20 ream.

21                         So, when a reamer is run into the hole, they call  
22 that tripping in or tripping out. They have to lower thousands  
23 of feet of pipe, screwing one piece at a time together.  
24 Sometimes three. But that's called a stand. But that's beyond  
09:37:46 25 what's important here.

1           Your Honor is, obviously, aware of this; but they  
2 -- they don't rotate the drill string. They're just lowering  
3 it; and then, when they pull it out, they just -- they lift it  
4 and hoist it out piece by piece; but when they're reaming,  
09:37:59 5 they're rotating this very rapidly so that these cutters --  
6 these cutting blades can cut the earth to make the hole bigger.

7           So, imagine a reamer that's got ten cutting teeth  
8 on it, and it's rotating at 240 RPMs. That means every second  
9 there's 40 teeth hitting the same part of the formation per  
09:38:24 10 second. 40 teeth per second are hitting the earth, and that's  
11 how it cuts it. It shears it away. It just keeps trimming it  
12 down. This thing is moving very fast as you're drilling.

13           Slide 7, the reason reamers are necessary in  
14 drilling is this thing called "drift diameter." As your Honor  
09:38:49 15 is probably well aware, the drill string is turned to the right  
16 at the surface. Because the drill string is turned to the  
17 right, that bit turns -- always turns to the right.

18           When it turns to the right, it tends to drift or  
19 walk to the right because it goes off bottom. It engages --  
09:39:05 20 just like if you try to drill something at home, you'll sort of  
21 have that reactive torque to your wrist. That drill bit walks  
22 to the right.

23           Well, what happens is that bit walks to the  
24 right; and it always walks to the right because it's never  
09:39:19 25 turned left; and you drill a corkscrew or a spiral through the

1 earth. That spiral creates problems. It's described in the  
2 Extreme patent here on Slide 7, and I've sort of exaggerated a  
3 little bit here just to prove -- sort of to show how this  
4 happens.

09:39:36

5 But the drift diameter -- if you could go down  
6 hole and peer through the well, you wouldn't see the gauge size  
7 of the drill bit. You'd only see a small window where all of  
8 those spiral or corkscrew path meet in the middle. So, you get  
9 this very narrow window that they call the drift diameter, which  
10 is what you could see through.

09:39:56

11 That drift diameter creates all kind of problems  
12 for the drillers because -- because that drill string is run  
13 through that narrow window, it has -- it builds up -- it absorbs  
14 a lot of the torque you want at that drill bit.

09:40:13

15 Additionally, after you drill the well, you got  
16 to pull this stuff out; and you got to run casing down hole,  
17 cementing tools, packers, frac sleeves. It makes it hard to  
18 push these things through that narrow drift diameter. So, they  
19 use a reamer to mount it behind the drill bit, sometimes hundred  
20 feet, sometimes 50 feet; and it's trying to knock off those  
21 ledges to expand that drift diameter.

09:40:32

22 Slide 8, I sort of highlight what -- Extreme's  
23 patented reamer, how it knocks off those ledges. It comes  
24 behind the bit; and it trims off the areas I've shaded in red or  
25 pink there to expand that drift diameter so you don't have this

09:40:59

1 as tortuous of a corkscrew down hole, to open the hole to a  
2 larger gauge.

3 THE COURT: May I ask a question?

4 MR. BOWICK: Yes, sir.

09:41:20

5 THE COURT: The drift diameter, is this suggesting  
6 that this is a correct -- this would be the preferred bore hole  
7 but because of the --

09:41:45

8 MR. BOWICK: Well, what I did, your Honor, if you look  
9 at Slide 7 -- this is from our brief -- I sort of showed how it  
10 walks to the right and how the drift diameter -- misexaggerated  
11 just for the sake of the demonstration.

09:42:00

12 So, the hole's -- if you take a slice at the hole  
13 at any point, the diameter is going to be the same. It's going  
14 to be the diameter of the drill bit. But because it's walking  
15 to the right -- if you look through there, it's almost a small  
16 window. Even though the bit might be this big (indicating), the  
17 window might be this big (indicating) if you were to look  
18 straight down the hole.

09:42:14

19 So, the reamer tries to ream out those ledges.  
20 And if you look at Slide 8 which is Figure 1a from our patent,  
21 you can see the drill string there laying in the hole. It's  
22 Number 10, and you can see above it it was labeled 12. Between  
23 12 and 16, you can see that curvature from that spiral.

09:42:40

24 And what the reamer tries to do is ream between  
25 the drill string, 10, and that dotted line, 16, to knock off

1 that sort of spiral corkscrew path.

2 THE COURT: And it also -- so, what shows as the lower  
3 edge of the pipe that has long triangles --

4 MR. BOWICK: Yes, sir.

09:43:18 5 THE COURT: -- that's just the reciprocal of the ones  
6 with the dots?

7 MR. BOWICK: Yes, your Honor. And if you look right  
8 below it with the little blue thing, I just sort of -- it's not  
9 this -- it's not that spirally; but I just sort of exaggerated  
09:43:32 10 so you could sort of understand that, as it drills, it's going  
11 to be a spiral; and it's going to knock off those triangles like  
12 you can see in Figure 1a of the patent.

13 So, if you look at Slide 9, your Honor -- so,  
14 what is the Extreme patented invention? This patented reamer  
09:43:49 15 was significant because it provided a reaming tool that  
16 significantly enlarged the drift diameter while drilling, that  
17 is, the reamer is run with the drill bit while you drill.  
18 That's significant for the driller for time savings and money  
19 because a lot of the prior reaming operations were done in two  
09:44:09 20 steps.

21 First, they would drill the well by lowering  
22 thousands of feet of pipe and drilling the hole out. They would  
23 have to trip that pipe out and pull it all out, then run a new  
24 trip with a reamer to ream the hole to make it bigger, and then  
09:44:24 25 pull another thousand feet of pipe out. So, there was four



1 trips that had to happen which took lots of time and a lot of  
2 money.

3                   So, the Extreme patent is a tool that is used  
4 with the drill bit. So, you just have a trip in and a trip out.  
09:44:39 5 You don't have a second step of a reaming operation.

6                   THE COURT: And that's the same -- when you need to  
7 change the drill bit, the reamer comes out, too?

8                   MR. BOWICK: Yes, sir. It's mounted behind the drill  
9 bit in the drill string.

09:44:57 10                   So, that was significant for the drilling  
11 industry because it saved you several days of the tripping  
12 operation which takes a lot of time; and time is money in the  
13 oil patch.

14                   So, Extreme didn't invent the reamer or even an  
09:45:15 15 eccentric reamer. But they designed a revolutionary tool that  
16 saw a significant need in the oil patch. First, the Extreme  
17 invention requires two reamers, two eccentric reamers; and the  
18 reason an eccentric reamer is significant, your Honor, is you  
19 have to squeeze this thing down through the vertical casing; and  
09:45:35 20 the drill bit has to be small enough to fit through the casing  
21 but so does the reamer.

22                   And an eccentric reamer has blades just on one  
23 side of it. So, you could sort of squeeze the non-blade side  
24 against one side of that pipe; and those blades on the other  
09:45:50 25 side can sort of slide along the pipe as you lower it. But once

1 you exit that casing, that pipe gets central inside the well  
2 bore; and those blades on one side are now -- have a larger  
3 diameter or larger radius than the drill bit itself to drill.

4           So, while eccentric reamers had been used in the  
09:46:15 5 past, they would just use one or two on the same side. What  
6 Extreme sought was they put these eccentric reamers, two of them  
7 on the same reamer, on opposite sides. The problem with single  
8 eccentric reamers is any cutting tool wants to follow the path  
9 of least resistance. Just like, if you were trying to drill a  
09:46:39 10 hole, if you have a hole already there, that bit tries to fall  
11 into the hole.

12           Well, a reamer that's following this spiral path,  
13 even an eccentric reamer, when it's going threw this spiral  
14 path, it -- the earth doesn't want it to be cut; and it's going  
09:46:49 15 to push the blades, the cutting blades, away from it which makes  
16 it follow the path of least resistance.

17           What Extreme solved is you have two eccentric  
18 reamers, one on each side of the tool; and this is what's shown  
19 on Slide 10.

09:47:09 20           THE COURT: 10?

21           MR. BOWICK: With reamers on opposite sides, they  
22 could squeeze this tool through the casing. Once it got past  
23 the casing and started drilling, these two reamers were on  
24 opposite sides. They were 180 degrees on the side of the tool.  
09:47:30 25 So, the resistance of the lower reamer pushing that reamer away

1 from the formation actually causes the second reamer on the  
2 other side to engage the other side and vice versa. So, they're  
3 constantly pushing each other to cut as they're going down hole.

4 So, that was a significant achievement where it  
09:47:45 5 guaranteed engagement and cutting action versus a single  
6 eccentric reamer that will just follow the path of least  
7 resistance. So, these two reamers act in concert and just churn  
8 together as described in the patent here on Slide 10, that these  
9 -- that the -- each reamer forces the other one into engagement  
09:48:05 10 and vice versa; and that was one of the significant parts that  
11 made this an inventive tool and made it a success in the  
12 oilfield.

13 Any questions on our tutorial before we get into  
14 our argument, your Honor?

09:48:20 15 THE COURT: I don't think so.

16 MR. BOWICK: Okay.

17 MR. RALEY: Thank you, your Honor.

18 As Mr. Bowick said, this is a case regarding  
19 Extreme's patented eccentric reamer. Eccentric means the  
09:49:33 20 cutting blades only go 180 degrees around, not 360 degrees  
21 around. Also, Extreme's patented reamer has two sets of blades  
22 on opposite sides of the reamer. And as Mr. Bowick shows, that  
23 helps them work better.

24 Reamers, of course, are down hole cutting tools.  
09:49:53 25 They enlarge a hole by cutting earth, and it straightens the

1 well bore. And that's why what's left over, your Honor, is  
2 called cuttings. And cuttings are lifted out by the circulatory  
3 system.

4 So, there are two claim terms at issue, "cutting  
09:50:13 5 blade" and "cutting teeth." The patent plainly describes them  
6 as two different things. As you'll see, Stabil Drill tries to  
7 morph them together into one thing.

8 Slide 11, your Honor, is, just for the record,  
9 the briefing that is on point by both sides, the patents that  
09:50:33 10 are being asserted, and the claims of the patents that are being  
11 asserted.

12 Slide 12 is the claim terms to be construed.  
13 Extreme's position is that the plain and ordinary meaning should  
14 be applied, that "cutting" is an adjective. So, a cutting blade  
09:50:51 15 is a blade that cuts earth when rotating in a well hole. A  
16 cutting -- cutting teeth are teeth that cut earth when rotating  
17 in a well hole.

18 As you'll see -- and we can talk about it some  
19 more -- Stabil Drill's proposed construction requires a certain  
09:51:08 20 shape of -- and a certain arrangement of the -- a certain shape  
21 of the teeth and a certain arrangement of the blades. We'll  
22 show the Court that none of that is backed up by the claims.

23 And according to the Federal Circuit, there is a  
24 heavy presumption that the ordinary meaning of claim terms  
09:51:26 25 should be followed. Slide 13 are just some of the cases on

1 point, your Honor, starting with the *Phillips* case which is  
2 often cited. The words of a claim are, generally, given their  
3 ordinary and customary meaning.

4           There is a heavy presumption that claim terms are  
09:51:43 5 to be given their ordinary and customary meaning. Claim  
6 construction is a matter of resolution of disputed meanings and  
7 technical scope to clarify and, when necessary, to explain.  
8 There must be a necessity. There must be something ambiguous  
9 about the terms that will make it hard for a person of ordinary  
09:52:02 10 skill to understand them and for the jury to understand them.

11           District courts are not and should not be  
12 required to construe every limitation. I'll note in a minute  
13 that several of these were actually cited by Stabil Drill in  
14 their motion for summary judgment when they were saying no  
09:52:21 15 construction was necessary.

16           So, most of the time, a Court should not define  
17 or rewrite claim terms. The cases seem to show that you should  
18 only do it for one of two reasons: when necessary to aid a  
19 jury's understanding without limiting the scope or to address an  
09:52:42 20 express limitation by the inventor to overcome prior art.  
21 Neither of those apply to this case.

22           Extreme has always taken the position that plain  
23 and ordinary meaning should be used. We've done it from the  
24 very first hearing. Stabil Drill argued that their rounded,  
09:53:02 25 domed inserts do not cut earth even though they're being rapidly

1 rotated down hole; and that's been their position.

2 If you look at Slide 14, your Honor, we were here  
3 in this courtroom almost three years ago, August 22, 2019; and  
4 you see Ms. Partridge arguing; and she had a demonstrative of  
09:53:22 5 her reaming tool. She said this section -- and she's pointing  
6 at the top section of the reamer -- is the stabilizer section.  
7 They're buttons. They don't cut.

8 And the Court said, Do they actually cut? So,  
9 the Court, I think, is getting it here and asking good  
09:53:36 10 questions. She says, No, the stabilizer doesn't cut. Actually,  
11 it can't cut. And the Court says, Think of a button if it hits  
12 something real hard. And she says, It's not a cutting blade.

13 And then, when I argued, I was reciting what she  
14 said. They say these are the teeth, and I'm looking at the  
09:53:52 15 bottom one. They say these are buttons, and I'm pointing at the  
16 top one, and I said -- and they say, The only cutting that is  
17 done is down here, not up here; and the Court says, No, sir. To  
18 tickle them. And I said, That's the substance of their  
19 argument. It's simply not true.

09:54:10 20 So, that has been the position they've taken from  
21 the very beginning; and that was the basis of their summary  
22 judgment motion which they lost in light of the evidence.

23 So, the next slide, your Honor, is from Stabil  
24 Drill's motion for summary judgment brief; and that's Slide 15.  
09:54:34 25 I've already read the last quote. So, just the top three. The

1 Court can resolve the issues in the instant motion without  
2 construing the terms at issue, cutting blade/cutting teeth, or  
3 by using the plain and ordinary meaning of the terms.

4           The claim language defines the balance of the  
09:54:53 5 claim scope. Courts indulge a heavy presumption that claim  
6 terms carry its ordinary and customary meaning. That's what  
7 Stabil Drill filed on January 23, 2020. Those are their words;  
8 and then -- it's really important to me, your Honor, just --  
9 they say they want a claim construction now because now they  
09:55:14 10 realize we have a disagreement with them about whether the  
11 buttons cut.

12           They've known that from the beginning. I said  
13 that in the hearing; but that was a big part of our response,  
14 proving that the buttons cut, the rounded, domed inserts cut,  
09:55:32 15 proving it with literature, prior art, their own admissions, a  
16 laboratory test, expert testimony, admissions of their expert.

17           Sorry if I went too fast.

18           So, their reply brief, your Honor, page 16, is  
19 really important to me, March 16, 2020. Even though they knew  
09:55:50 20 our position, they said again, The claim terms can be understood  
21 by a person of skill in the art, even a lay person, based on  
22 their plain and ordinary meaning. Such is the case here.  
23 Stabil Drill's arguments are rooted in the plain and ordinary  
24 meaning of the language of the claim terms themselves.

09:56:09 25           We agree. That was their position then. They've

1 changed now after they lost summary judgment. They were proven  
2 wrong by all sorts of different evidence, experts, literature,  
3 prior art, even a laboratory test. Some of that evidence, your  
4 Honor -- and I won't belabor this.

09:56:34

5 But Slide 17, these are rounded, domed  
6 tungsten-carbide inserts that have been used in the oil patch  
7 for generations. The Court may recognize the roller-cone bit on  
8 the right from the Howard Hughes' family going back to the  
9 1930s, even earlier.

09:56:54

10 And even before that, on the left-hand side, a  
11 fixed head bit which just spins in a circle which is an early  
12 form of drill bit. All of those have rounded, domed  
13 tungsten-carbide inserts. And you can see how they're described  
14 in the patents as cutting in, cutting in, cutting in over and  
15 over and over again. There is no dispute that these rounded,  
16 domed inserts cut, at least, among people in the oil patch.

09:57:19

17 And if you can look at the next slide, Slide 18,  
18 this is Stabil Drill's torque-sub, which is a reamer. You can  
19 see that it has rounded, domed tungsten-carbide inserts just  
20 like the reamer at issue in this case. And they describe it in  
21 their literature as a durable cutting structure. So, they say  
22 in their literature their rounded, domed inserts cut. They're  
23 part of their cutting structure.

09:57:40

24 And on the bottom right-hand corner is  
25 Schlumberger's sub also with rounded, domed inserts designed to

09:58:00



1 cut earth. That's what they do, and just -- so, there can be no  
2 confusion, we even did a laboratory exam where we put a  
3 tungsten-carbide rounded, domed button on a piece of pipe and  
4 turned it on a lathe and held it up against a concrete block;  
09:58:19 5 and there's a video of it somewhere in the summary judgment  
6 evidence.

7 But it cuts. That's what it does. When  
8 something hard is moving against something that's softer than it  
9 and there's pressure applied and there's motion, it cuts. So,  
09:58:36 10 we submit that what Stabil Drill is trying to do today is a  
11 do-over.

12 They lost the summary judgment. So, they want  
13 the Court to define claim terms that are easily understood with  
14 words of manifest exclusion that are not supported by the claim  
09:59:00 15 terms or the specification or the file history. They want a  
16 specific shape of teeth to be required that's different than  
17 their shape. They want a specific configuration of the blades  
18 to be required that's different than theirs so that they can say  
19 that they don't infringe.

09:59:16 20 That's what's going on today. Even though their  
21 dome-shaped teeth have now been proven to cut earth and are,  
22 therefore, cutting teeth, they want the Court to declare that  
23 the cutting teeth must be a certain shape to be cutting teeth.

24 This is crucially important, your Honor.  
09:59:34 25 Absolutely nothing in the claims, nothing whatsoever, requires a

1 certain shape of the teeth. It's just not there. And the  
2 specification shows different types of teeth, including teeth  
3 just like Stabil Drill's. There are rounded, domed insert teeth  
4 in the specification.

09:59:50

5 So, we've used the analogy of a knife before. A  
6 knife can have a straight edge or it can have different types of  
7 serrations. Either way, if a knife is harder than the matter  
8 it's up against and pressure is applied and it's moving, it  
9 cuts. So, a straight edge knife is a cutting blade. A knife  
10 with serrations on it is a cutting blade with cutting teeth.

10:00:10

11 Either way, it cuts. It just cuts in different ways.

12 So, if you look at Slide 20, we kind of see that  
13 -- the bouncing ball of different arguments that Stabil Drill  
14 has made in this case. And by the way, of course, the blades on  
15 both Extreme's reamer and Stabil Drill's reamer are spiral.

10:00:33

16 They're spiral blades. So, we're just using the knife as an  
17 analogy.

18 But Extreme's patents, the independent claims,  
19 don't mention teeth at all. There's no mention of teeth in the  
20 independent claims, only in some of the dependent claims. So,  
21 that's a straight-edge knife right there. That's all the  
22 independent claims call for, a cutting blade.

10:00:49

23 Stabil Drill's tool has rounded, domed inserts;  
24 and we've tried to simulate them a little bit in this second  
25 knife here. It's just kind of a smooth serration. Their

10:01:09

1 summary judgment position was that, for it to be cutting teeth,  
2 it needed to be sharp, that the serrations needed to be sharp  
3 angles. So, we've done that in the third one from the top.  
4 Sharp angles.

10:01:29 5 Now, their claim construction position is that  
6 the cutting teeth should be flat-faced. That's a new one. So,  
7 it's just whatever they can do to define it as something  
8 different than what they have in number two. That's what's  
9 going on.

10:01:50 10 Regarding the spiral configuration, there is  
11 absolutely nothing in any claim that supports the construction  
12 that they're trying to make of longitudinal. The independent  
13 claims don't require any geographical configuration. Some of  
14 the dependent claims say spiral, but both of them spiral.

10:02:08 15 There's no specific angle required.

16 All right. So, the minimum -- and this is --  
17 Stabil Drill's expert admitted this in deposition,  
18 Mr. Teodorescu. It sounds like a sentence but -- if the minimum  
19 speed of a reamer spinning down hole is 60 RPM -- it goes up to  
10:02:36 20 240. Usually, it's faster than 60. But if you start just at 60  
21 and there's five blades, each with six domed tungsten-carbide  
22 inserts spinning at 60 RPM, that means that 30 of those domed  
23 inserts are hitting earth every second.

24 Now, Mr. Teodorescu testified, he admitted, that  
10:03:00 25 rounded, domed inserts just like Stabil Drill's cut earth when

1 rotated down hole. That's on page 45 of his deposition, and  
2 that is part of our summary judgment evidence. He agreed that  
3 reamers cut earth. That's what they do. That's what they're  
4 designed for. Every reamer, no matter the shape of the blade or  
10:03:20 5 the teeth, cuts earth; just do them in different ways.

6 So, it's a fundamental principle of patent law  
7 that the claims of a patent define an invention; and claims will  
8 not be read restrictively unless the patentee has demonstrated a  
9 clear intention to do so.

10:03:40 10 Stabil Drill's proposed construction violates the  
11 law in several ways. First, they try to confine us to the  
12 preferred embodiment by saying the teeth must be flat-faced.  
13 There are pictures of those in the preferred embodiment, but --  
14 which the law says you can't do because you're supposed to  
10:04:01 15 follow the claims.

16 But even worse than trying to limit us to the  
17 preferred embodiment, they don't even use all of the preferred  
18 embodiment because the preferred embodiment has some rounded,  
19 domed inserts, too, that they don't talk about.

10:04:15 20 So, they want to limit us to only a portion of  
21 the preferred embodiment; and their language is so harshly  
22 exclusive it even excludes the preferred embodiment. There's  
23 nothing about longitudinal in the preferred embodiment. It's  
24 spiral. And of course, the rounded, domed inserts. So, both  
10:04:33 25 are plain errors of patent law. They try to limit us to the

1 preferred embodiment; and then, in doing so, they're so  
2 exclusive that they -- they exclude the preferred embodiment.

3           The inventors of Extreme's patents did not feel  
4 it was necessary to define terms beyond their plain and ordinary  
10:04:56 5 meaning. As Stabil Drill admitted in its motion for summary  
6 judgment and reply, the terms can be easily understood by the  
7 jury. So, the written description of Extreme's patents  
8 Mr. Bowick will discuss in a minute says cutting blades cut,  
9 cutting teeth cut. Both flat-faced and rounded, domed inserts  
10:05:13 10 just like Stabil Drill's are in there as cutting teeth.

11           It's obvious why Stabil Drill wants to try to  
12 have this Court limit the shape of the teeth to flat-faced, it's  
13 because theirs are domed. But that's not an appropriate use of  
14 *Markman*. That's really gamesmanship, and that's not what it's  
10:05:37 15 supposed to be about in a court of law.

16           The claims don't specify any shape, and the  
17 specification has both flat-faced and rounded domes. There are  
18 cases that say it's a cardinal sin to try to read a limitation  
19 from the written description into the claims. It's not often a  
10:05:56 20 federal judge is asked to commit a cardinal sin, but that is  
21 what the law says. And indeed, it's even worse than a cardinal  
22 sin that they're trying to do because they want the Court to  
23 only read part of the written description of the claims,  
24 ignoring the rest.

10:06:09 25           So, Stabil Drill admits that both its upper

1 reamer section and its lower reamer section have blades. I'll  
2 show you the quote in a second. That's what their literature  
3 says. That's what their patent application says. Also, the  
4 prior art shows rounded, domed inserts on blades that cut earth.

10:06:29

5 So, this is a not a difficult concept to  
6 understand. "Cutting" is an adjective. So, for a cutting blade  
7 -- if you can look at Slide 21, your Honor, these are dictionary  
8 definitions. "Cutting," it means able to cut or slide, a  
9 cutting blade.

10:06:47

10 THE COURT: Mr. Raley --

11 MR. RALEY: Yes, your Honor.

12 THE COURT: -- let me read that.

13 MR. RALEY: I'm sorry?

14 THE COURT: Let me read that.

10:06:53

15 MR. RALEY: I apologize.

16 THE COURT: It's right here, and it will be faster.

17 MR. RALEY: Sure.

18 I'll wait until your Honor --

19 THE COURT: Just give me a minute.

10:07:10

20 MR. RALEY: I wasn't going to read it all.

21 THE COURT: All right.

22 MR. RALEY: All right, sir. Thank you.

23 So, if you look at the next slide, 22, this is a  
24 quote from Stabil Drill's motion for summary judgment. It says,  
25 Anyone, not just a person of ordinary skill in the art, can

10:07:40

1 easily understand the meaning of the claim term "cutting  
2 blades." They are blades that cut.

3 That's what Stabil Drill said on January 23,  
4 2020, cutting blades are blades that cut, which is, your Honor,  
10:07:57 5 precisely the plain and ordinary meaning that Extreme asserts  
6 here.

7 The next slide, 23, is the claim construction  
8 slide for a cutting blade. We say, A blade that cuts earth when  
9 the reamer is rotating while drilling a well hole.

10:08:17 10 They're now trying to have a harsh construction  
11 of a set of cutting teeth arranged longitudinally along the  
12 length of the reamer. So, they've gone far afield from their  
13 summary judgment position that no construction is necessary.  
14 Having lost, they want it defined in a way that they don't  
10:08:33 15 infringe.

16 Cutting teeth. 24 is the definitions. I'll let  
17 your Honor look at it, and let me know when you're ready to go.  
18 I was just going to say --

19 THE COURT: Which page are you on?

10:08:46 20 MR. RALEY: 24. I was just going to say the tooth is  
21 a projection resembling or suggesting a tooth. But if you want  
22 to read the rest of it. These are all very similar definitions  
23 of "tooth" in a machine sense.

24 Just let me know when you're ready.

10:09:13 25 THE COURT: I'm ready.

1 MR. RALEY: Yes, your Honor.

2 So, a tooth is a projection that resembles or  
3 suggests a tooth; and there are also dictionary definitions of  
4 cutters on page 25, Slide 25. These tungsten-carbide inserts  
10:09:27 5 have been around for generations; and they're described in the  
6 literature.

7 One end of the insert is rounded or tapered. The  
8 rounded or tapered end contacts the formation and drills it.  
9 Several inserts make up the cutters on a tungsten-carbide insert  
10:09:45 10 bit. So, again, the word "cutter" in reference to the rounded,  
11 domed inserts.

12 The definition of "cutters," again, in this  
13 dictionary for the oil and gas industry are the parts of a  
14 reamer that actually contact the wall of a hole to open it to  
10:10:03 15 full gauge. So, again, this is called cutting. It's not called  
16 -- the remnants are not called rubbings or crushings or  
17 scrapings. They're called cuttings because that's what goes on  
18 down hole. It's a cutting.

19 And Stabil Drill's expert admits this. If you  
10:10:20 20 could look at Slide 26, your Honor.

21 This is a question to Mr. Teodorescu: "In the  
22 context of a reamer, do you agree that cutting teeth are teeth  
23 that cut earth?"

24 He said, "Yes."

10:10:35 25 So, again, this is precisely the plain and



1 ordinary meaning that Extreme asserts. Cutting teeth are teeth  
2 that cut earth.

3 If you look at Number 27, there is our  
4 construction, Slide 27. Teeth that cut earth when a reamer is  
10:10:57 5 rotating while drilling down hole. You see that they try to add  
6 a restriction that it has a flat cutting surface. There is  
7 nothing in any of the claims that requires a specific shape.  
8 And indeed, the word "flat" isn't even in the specification.  
9 They're just -- they're just trying to define it in a way that  
10:11:18 10 they don't infringe.

11 So, we would like to stick with where Stabil  
12 Drill was earlier in the case, that no construction is  
13 necessary; plain and ordinary meaning; blades are blades that  
14 cut earth; teeth are teeth that cut earth. It's that simple.

10:11:38 15 The independent claims, your Honor, if we look at  
16 Slide 28, refer to cutting blades often. And what they say is  
17 that a cutting blade is a structure that extends a distance  
18 radially outward from the surface of the reamer. That's what a  
19 blade is. So, we all kind of know what that is.

10:12:03 20 No independent claim -- your Honor, this is  
21 important -- requires cutting teeth on the blades. It just says  
22 blades. Also, no independent claim requires any kind of  
23 geometric arrangement of the blades.

24 Some of the dependent claims require teeth but no  
10:12:22 25 shape of the teeth is mentioned. Some of the dependent claims

1 mention a geometric shape. But the only thing it says is  
2 spiral, and ours is a spiral, and theirs is a spiral. It  
3 doesn't say how much of an angle or anything like that.

4 So, the claims -- oh, we've talked about that.

10:12:45

5 There are several other cases, your Honor, on  
6 point that have considered this same kind of claim language. If  
7 you could look at Slide 29 and 30. All of these cases apply the  
8 plain and ordinary language to cutter blade, cutting blade, a  
9 blade for cutting, cutting blade, cutting blade to achieve  
10:13:18 10 cutting. These are all cases that recognize that the plain and  
11 ordinary meaning of cutting blade is what it is, a blade that  
12 cuts.

13 Also, if you could look at Slide 31, several US  
14 patents and publications describe reaming tools with cutting  
10:13:39 15 blades as using plain and ordinary meaning. You see the  
16 Deschutter patent there. That's a reamer with a -- they call it  
17 a cutting arm, but there's no special definition. It's  
18 something that cuts.

10:13:58

19 A paper by Mr. Fox describes how blade reamers  
20 cut, and some of them have cutting teeth welded to the blades  
21 for more aggressive cutting. None of these feels like there's  
22 any kind of magic definition to it beyond a blade that cuts or  
23 teeth that cut.

10:14:19

24 A patent to Shotwell on page 32 talks about a  
25 plurality of cutting blades and also mentions cutting inserts,

1 distinguishing the blade from the insert, which is what we do in  
2 our patents, as well.

3                   So, if you look at Slide 33, your Honor,  
4 Extreme's patent was invented by the same three men who designed  
10:14:42 5 the tool for Stabil Drill and applied for a patent on that tool.  
6 I guess they thought that they had made it differently enough.  
7 They didn't in our opinion. We submit that the claims are --  
8 directly overlay their tool, the claims we are asserting; but  
9 that will be a question for the jury to decide some day.

10:15:09 10                   Stabil Drill's counsel admitted in open court  
11 that both the raised spiral portions of Stabil Drill's upper and  
12 lower sections have blades.

13                   If you could look at the next page, your Honor,  
14 page 34, Ms. Partridge says, "And, your Honor, we" -- and this  
10:15:27 15 is, again, on October 8, 2019. "And, your Honor, we don't have  
16 any dispute that there are things called blades on both  
17 sections."

18                   So, that's really not something that can be in  
19 dispute. Stabil Drill's documents say the same thing. You can  
10:15:43 20 see at the bottom of the page -- this is from their patent  
21 application. They refer to blades on both sections.

22                   Page 35 is their engineering drawings. They  
23 refer to blades on both sections.

24                   Page 36 is from their PowerPoint and also --

10:16:03 25                   THE COURT: Wait, wait. On 35, please, sir.

1 MR. RALEY: Yes, your Honor.

2 THE COURT: On Stabil Drill 32, where are the cutting  
3 points?

4 MR. RALEY: Okay. The blades are the long things that  
10:16:23 5 stick out. The teeth are mounted on the blades. So, cutting  
6 blades with cutting teeth cut earth. You can have cutting  
7 blades without teeth that cut earth. You can have cutting  
8 blades with cutting teeth that cut earth.

9 Here, on both Stabil Drill's and on Extreme's,  
10:16:49 10 there are inserts that stick out from the blades that cut earth  
11 made of tungsten-carbide.

12 THE COURT: And that's what these holes on 35 are?

13 MR. RALEY: Yes, your Honor.

14 THE COURT: Do you have a cutting element stuck into  
10:17:08 15 the hole?

16 MR. RALEY: Yes, your Honor.

17 So, our position is that the inserts are the  
18 cutting teeth; and the point I'm trying to make is there's an  
19 admission from Stabil Drill over and over and over again that  
10:17:38 20 both their upper and lower sections have blades.

21 There's some of their literature on page 36.

22 Page 37 is one of their brochures. They refer to  
23 blades on the upper and lower reamers; but again, counsel has  
24 admitted that in court.

10:17:57 25 So, I'd like to talk for a second about the

1 principle of claim differentiation. That's Slide 18 (sic).  
2 It's just the difference between dependent and independent  
3 claims; and I know your Honor is aware of this, that -- that a  
4 dependent claim --

10:18:13 5 THE COURT: What's your reference again?

6 MR. BOWICK: 38.

7 MR. RALEY: 38, your Honor, I apologize.

8 THE COURT: 38.

9 MR. RALEY: A dependent claim cannot add a limitation  
10 to an independent claim. That would be like the tail wagging  
11 the dog. Claim differentiation means that an independent claim  
12 should not be construed as requiring a limitation made by a  
13 dependent claim.

14 So -- and as this case says at the bottom of 38,  
10:18:44 15 limitations and dependent claims are not to be read into the  
16 independent claim from which they depend. So, that's what  
17 Stabil Drill is trying to do in this case. The independent  
18 claims only require blades, no mention of teeth.

19 They're trying to define blades as including  
10:19:07 20 teeth. They're trying to move something from the dependent  
21 claim to the independent claim. We're asserting both, but we  
22 just disagree with the way that they're doing it because it  
23 violates this principle.

24 Now, some dependent claims mention cutting teeth;  
10:19:21 25 but there's no specific shape mentioned in the claims of the

1 teeth. And the drawings in the patent specification show both  
2 flat-faced and rounded domes.

3           Also, the independent claims don't mention any  
4 geographic configuration of the blades. Some of the dependent  
10:19:45 5 claims do say spiral. They're trying to incorporate -- well,  
6 none of them say longitudinal. They're trying to add the word  
7 "longitudinal" which they just kind of made up because it's  
8 nowhere in the claims.

9           They say longitudinal in their claim construction  
10:20:04 10 brief over and over and over again until about page 18 until  
11 they finally admit it's not precisely longitudinal and it's  
12 generally longitudinal. I don't know what's going on. But  
13 that's not anywhere in the claims or the patent. Some of the  
14 dependent claims say spiral. The independent claims don't say  
10:20:21 15 anything.

16           All right. So, that violates this principle of  
17 claim differentiation.

18           Slide 39. I won't go into great detail on this.  
19 But this is what I was talking about. Some of the dependent  
10:20:40 20 claims add cutting teeth. But it doesn't say a specific shape.

21           Same with Slide 40.

22           THE COURT: It doesn't say what?

23           MR. RALEY: A specific shape, your Honor.

24           And same with 40. Some of the dependent claims  
10:21:06 25 add teeth. The independents don't mention teeth.

1 THE COURT: But what does the --

2 MR. RALEY: Yes, your Honor.

3 THE COURT: What does the original patent say? It  
4 doesn't say teeth. Does it say --

10:21:19 5 MR. RALEY: Blades. It just mentions blades in the  
6 independent claims. Teeth -- teeth don't come along until the  
7 dependent claims.

8 All right. Regarding longitudinal -- this is  
9 Slide 41 -- none of the independent claims require specific  
10:21:39 10 geometric relationship of the -- of the blades. Some of the  
11 dependent claims mention a spiral, but there's no claim that  
12 says longitudinal which is the word they are trying to import.  
13 That's nowhere in there, and it's not anywhere in the patent.

14 THE COURT: What is longitudinal's function in this  
10:22:04 15 case?

16 MR. RALEY: It has no function in this case. They're  
17 trying to define it in a way they don't infringe. There's -- I  
18 can show you a picture of something that is longitudinal,  
19 though. It's from one these torque-subas we looked at a second  
10:22:20 20 ago.

21 MR. BOWICK: John, let me address the Court's question  
22 real quick.

23 Your Honor, Stabil Drill's accused tool has  
24 spiral blades that are at a lower angle; and they're trying to  
10:22:28 25 limit the claims to longitudinal along the link, like, the long

1 link, to avoid infringement. They're saying -- our blades are  
2 spiral at a steep angle. And they want to limit the claims to  
3 longitudinal blades which is not even in our patent.

4 MR. RALEY: If you look at page 18, the Schlumberger  
10:22:52 5 sub at the bottom has longitudinal blades. That's straight up  
6 and down. That's what they're trying to say; and then --

7 THE COURT: It's the pipe that's straight up and down.

8 MR. RALEY: Right. The blades on both Extreme's --

9 THE COURT: You can do anything longitudinally.

10:23:08 10 MR. RALEY: Right.

11 THE COURT: You might need a tractor.

12 MR. RALEY: The blades on both Extreme's patent and  
13 Stabil Drill's tool are spirals. They are spirals at different  
14 angles, but they're still spirals. And as you can see, the  
10:23:23 15 independent claim doesn't mention anything about how the blades  
16 are to be arranged; but if you look at page 41, there's --  
17 there's a dependent claim that says arranged along a spiral path  
18 along the surface.

19 You don't see any mention there of an angle, it  
10:23:42 20 just says spiral. So, theirs is a spiral, ours is a spiral. It  
21 violates the dependent claim. Also, it violates the independent  
22 claim which doesn't require any configuration. But they're  
23 trying to import the word "longitudinal" which means straight up  
24 and down which is nowhere in the claims anywhere.

10:24:02 25 Okay. So, the terms at issue, "cutting blade,"



1 "cutting teeth." If you look at Slide 42, you can see that the  
2 patent plainly describes these -- again, this is a dependent  
3 claim -- as two different separate claim elements. So, you see  
4 Claim 4, the apparatus of Claim 1, further comprising an array  
10:24:36 5 of two or more cutting teeth extending from each of the cutting  
6 blades.

7 So, they're describing two different things.  
8 Teeth and blades are two different things, different words with  
9 different meaning. The case law on point, you can see at the  
10:24:54 10 bottom of the page, Where a claim lists elements separately, the  
11 clear implication of the claim language is that those elements  
12 are distinct components of the patented invention.

13 But you'll see that Stabil Drill tries to define  
14 "cutting blade" as including teeth. These are separate terms  
10:25:14 15 with separate meanings. They need to be handled separately.

16 More cases, page 43. In the absence of evidence  
17 to the contrary, we must presume that the use of different terms  
18 in the claims denote different meanings.

19 Two adjacent claims use different claims in  
10:25:39 20 parallel settings supports the conclusion that the two terms  
21 were not meant to have the same meaning. So, a blade is  
22 different than a tooth. You can have a cutting blade with no  
23 teeth or you can have a serrated cutting blade, that is, a  
24 cutting blade with cutting teeth.

10:25:56 25 THE COURT: You can have a cutting edge that's

1 designed to cut other cutting edges.

2 MR. RALEY: Sure.

3 THE COURT: But --

4 MR. RALEY: So, our perspective is the adjective

10:26:19 5 "cutting," which means able to cut, and the noun "blade" means  
6 the cutting part of an implement. So, we have an adjective and  
7 a noun, a cutting blade is a blade that cuts earth when rotating  
8 down hole.

9 The noun "tooth" in machinery means a projection  
10:26:39 10 suggesting a tooth. So, we have the same adjective, "cutting."  
11 So, cutting teeth are teeth that cut earth when rotated down  
12 hole. These are the plain and ordinary meanings submitted by  
13 Extreme. They were the plain and ordinary meanings at one time  
14 submitted by Stabil Drill until they lost their summary  
10:26:51 15 judgment.

16 Any projection of tungsten-carbide of whatever  
17 shape, one of the hardest substances known to man, when rotated  
18 rapidly down hole at 60 to 240 RPM will cut earth. That's what  
19 they're designed to do. They are cutting teeth.

10:27:17 20 So, if you look at page 44, the one on the left  
21 is from Stabil Drill's brief. That's their vision of how  
22 flat-faced inserts cut earth; but as you can see, Stabil Drill's  
23 reamer, Extreme's reamer, all the other reamers out there for  
24 generations that have rounded, domed inserts also cut earth.

10:27:48 25 It's just if we could look at page 45, and I'll

1 conclude with this. This is -- this is a ball peen hammer, your  
2 Honor. And somehow, Mr. Bowick was able to get into the  
3 courthouse with it. But it's got a flat face here, and it's got  
4 a rounded face here. And I won't do it. But here's the corner  
10:28:12 5 of a table. You can imagine that --

6 Can you see it, your Honor?

7 THE COURT: Yes, sir.

8 MR. RALEY: Okay. You can imagine that as something  
9 sticking out from the -- from the outside of a well hole that  
10:28:20 10 needs to be knocked off. If I hit it with that (indicating)  
11 hard enough, it will knock it off. If I hit it with that  
12 (indicating) hard enough, it will knock it off.

13 The wood doesn't care. It's something with force  
14 that's moved with pressure against it; and if we wanted to  
10:28:37 15 simulate the actual motion of the reamer, we could turn it on  
16 its side. What they're -- what they're arguing is the flat face  
17 comes this way and knocks it off.

18 But it's the same semi-circular approach of a  
19 rounded, domed reamer spinning in a circle, as spinning in a  
10:28:58 20 circle down hole, and coming down on this to knock that edge  
21 off. A rounded, domed reamer made of this hard substance will  
22 cut that earth. As their own expert admits, as their literature  
23 admits, as the laboratory test showed, it cuts earth. It's a  
24 cutting tooth.

10:29:16 25 So, if we could summarize Stabil Drill's

1 arguments, they say, even though our own expert admits and all  
2 the evidence supports that our reamer's rounded, domed teeth cut  
3 earth, they are not cutting teeth. Also, even though our own  
4 expert admits and all evidence supports that our reamer's blades  
5 with those teeth cut earth, they are not cutting blades.

10:29:39

6 We submit that there is no merit to those  
7 arguments. Cutting blade and cutting teeth should be given  
8 their plain and ordinary meaning. That is what the law  
9 requires. That is what the evidence compels.

10:29:57

10 Thank you, your Honor.

11 Now, Mr. Bowick is going to talk about how our  
12 proposed construction of plain and ordinary meaning --

13 THE COURT: Those of us who are normal are going to  
14 take a 30-minute break.

10:30:10

15 MR. RALEY: Whatever you want, your Honor. The next  
16 thing is Mr. Bowick is going to talk about the patent  
17 specification and file history; and then, we sit down. So, we  
18 can take a break and whatever you want.

19 THE COURT: 30 minutes.

10:30:20

20 MR. RALEY: Yes, your Honor.

21 MS. PARTRIDGE: Thank you, your Honor.

22 (Court recessed at 10:30 a.m.)

23 (Court resumed at 10:56 a.m.)

24 THE COURT: Are you using this thing?

10:56:53

25 MR. BOWICK: Yes, sir. Yes, your Honor.

1 THE COURT: Thank you.

2 MR. BOWICK: Same slides. We're going to start off  
3 with Slide 46.

4 THE COURT: Yes, sir.

10:57:03 5 MR. BOWICK: Yes, sir.

6 So, I'm going to address the remaining two parts  
7 of the intrinsic evidence or the intrinsic record which  
8 comprises the specification and the file history.

9 As the Court's probably well aware, the  
10:57:16 10 specification is the written description of the patent. When we  
11 talk about contracts, it's the four corners of the document.  
12 The claims form part of the specification. I'm not going to  
13 rehash or replot the material that Mr. Raley did because he's  
14 already addressed the claims and the dependent claims pretty  
10:57:33 15 thoroughly.

16 But the law is pretty clear here that the -- it's  
17 not only improper -- and Mr. Raley already addressed this or  
18 stole some of the thunder, but it's been called a cardinal sin  
19 to try to import limitations from the specification into the  
10:57:49 20 claims.

21 It's usually defendants in almost every patent  
22 case I've been in who try to limit it to a figure or to a word  
23 that's in the specification. But you have to start off with the  
24 claims as understood by a person of ordinary skill.

10:58:07 25 Now, the only justification for construing a term

1 restrictively and not applying the plain and ordinary meaning is  
2 where the inventors have demonstrated a clear intent to limit  
3 the claim scope using words of manifest exclusion or  
4 restriction. This is sometimes referred to as an inventor being  
10:58:28 5 his own lexicographer, where he sort of creates his own language  
6 or lingo in a patent; but it has to be clear intent to limit its  
7 -- find that there's clear intent that the inventor intended to  
8 limit the words beyond the ordinary and customary meaning.

9           Now, if you look at Slide 47, what does the  
10:58:53 10 specification say about cutting? The specification says -- it  
11 talks about the reamers engaging and cutting and cutting away  
12 portions of the nearer surface of the well; but ultimately, it's  
13 cutting away materials. And Mr. Raley said earlier when you cut  
14 it away, those pieces come up to the surface through a shale  
10:59:20 15 shaker, and they call those cuttings, and they're disposed of.

16           Now, the specification on Slide 48 -- I'm not  
17 going to rehash this, but the independent claims only use the  
18 terms "cutting blades," whereas the dependent claims, some of  
19 them, add "cutting teeth" to the blades. But if you look at the  
10:59:45 20 specification, just like the claims, they use different words to  
21 mean different things.

22           At the '205 patent in Column 5, lines 23 through  
23 26, it says, The configuration of blades and the cutting teeth  
24 thereof. So, the blades and the cutting teeth are two separate  
11:00:05 25 things.

1 At the '205 at the bottom, Number 3, you see the  
2 word "and." Again, it says, The reamer tool showing cutting  
3 teeth and illustrating a sequence of the Blades 1, 2, 3 and 4.  
4 So, the use in the specification of the word "and" shows that  
11:00:27 5 the two structures are different. They're not the same.

6 Nowhere in the patent is the inventor's clear  
7 intent to say the cutting blades are the teeth. It says you  
8 have cutting blades, and you have cutting teeth. They're two  
9 separate things. They're not the same.

11:00:44 10 Slide 49, you see words that show that the  
11 cutting blades and the teeth are not the same. You see the  
12 words in Number 4 "preferably comprise." So, the cutting  
13 surface preferably comprises a number of carbon -- carbide or  
14 diamond teeth.

11:01:07 15 Number 5, the patent specification says the teeth  
16 may form one of four blades. They use "may form" one, two,  
17 three, four -- five times here. That's not words of manifest  
18 exclusion or restriction. Instead, the inventors say,  
19 Preferably comprises, may form.

11:01:28 20 And then, if you look at Number 6, they say,  
21 Teeth of Blade 1. This is further evidence of what the  
22 inventors are describing as two separate structures. There is  
23 no use of terms of manifest exclusion or restriction in the  
24 specification.

11:01:44 25 Slide 50, again, the claims themselves define.

1 They say, Cutting blades extending a distance radially outward  
2 from the outer surface of the reamer. We've illustrated that  
3 showing the outer surface is this green circle here, and the  
4 blade is the part that extends beyond the outer surface of the  
5 reamer.

11:02:13

6 In the preferred embodiment, there are teeth  
7 mounted on those blades; but the blade is the part that extends  
8 out from the outer surface of the reamer.

9 In Slide 51, we illustrate --

11:02:15

10 THE COURT: Wait, wait. On that one --

11 MR. BOWICK: Yes, sir.

12 THE COURT: So, one of them is marked 108 in the  
13 right-hand most chart.

14 MR. BOWICK: Yes, sir. I see that.

11:02:34

15 THE COURT: So, what is that? I mean, it says 114 at  
16 the bottom. I think I know, but I want you to tell me.

17 MR. BOWICK: Let me look at the patent, your Honor. I  
18 got it right here.

19 MS. PARTRIDGE: Do you want me to answer? It's the  
20 cutting teeth.

11:02:51

21 THE COURT: It's what?

22 MS. PARTRIDGE: It's the cutting teeth.

23 MR. RALEY: It's our time, counsel.

24 MR. BOWICK Okay. I thought it was the cutting teeth,  
25 but they're pointing to the cutting teeth. That's what those

11:02:51



1 are mounted on the blades there. So, 108 is the --

2 I mean, I assume you're representing it right.

3 It's the cutting teeth mounted on the cutting  
4 blades just like the dependent claims say. It says, Wherein,  
11:03:09 5 the cutting blades further have cutting teeth extending  
6 therefrom.

7 Your Honor, if you look at Slide 51, you can see  
8 the preferred embodiment there, Figure 10 of the Extreme  
9 patents. And you see we've colored the cutting blades blue with  
11:03:30 10 the cutting teeth extending therefrom in red.

11 And if you look at Figure 10 here, you can see --  
12 if you look at the Number 310C right above Blade 3, you can see  
13 a little arrow. You can see one of those rounded, domed inserts  
14 that's been talked about so much this morning.

11:03:55 15 If you look at Blade 4 on the left-hand side,  
16 that second tooth there, sort of to the right of where it says  
17 Blade 4, there's another rounded, domed insert. But the law is  
18 clear, even if the patent sets forth the preferred embodiment,  
19 it should not be limited -- should not limit the scope to that.

11:04:17 20 That is just Patent Law 101.

21 But if you look at these preferred embodiments,  
22 they clearly demonstrate that they're separate structures.  
23 There's cutting blades that may or may not have cutting teeth.  
24 In the preferred embodiment, the blades do have teeth, which  
11:04:35 25 kind of track those dependent claims where they say there are

1 teeth extending from the blades from the independent claims.

2 Slide 52 is just more of the same. I've just  
3 illustrated what is a blade in the -- in the various figures and  
4 what are the teeth that are extending therefrom.

11:05:01 5 And then, Slide 53, this is Figure 10; and I've  
6 shown where the rounded, domed teeth are versus the flat-faced  
7 teeth that are extending from the cutting blades.

8 Now, according --

9 THE COURT: I see them.

11:05:24 10 MR. BOWICK: Now, according to Stabil Drill's  
11 construction, to be a -- I mean, they've morphed teeth and  
12 blades together; but the way I understand their interpretation,  
13 a cutting blade is only flat-faced cutting teeth mounted on a  
14 blade.

11:05:44 15 That would exclude Figure 10, the preferred  
16 embodiment, which you can't do. You can't construe the claims  
17 to exclude the preferred embodiment because, if you have one  
18 tooth that's not flat-faced, it wouldn't be a cutting blade  
19 according to Stabil Drill's construction.

11:06:06 20 Now, Stabil Drill's brief also relies on  
21 Extreme's licensee. They have a licensee that they manufacture  
22 and sell their tools to here in Houston called Drilling Tools  
23 International, Inc.

24 THE COURT: Uh-huh.

11:06:22 25 MR. BOWICK: And the tool that they make for them is

1 called the Drill-N-Ream tool. And in some of the advertising  
2 materials of DTI, they have these rounded domes on the -- on the  
3 blades, as well. They have a rounded dome tooth. And in those  
4 advertising materials, they highlight those and say these  
5 rounded domes protect the casing when the reamer is tripped in  
6 and tripped out of the well, when it's run through that casing,  
7 because, once you've seen that casing in there, you don't want  
8 to cut a gouge in it.

9 So, when they are not rotating, when they're just  
10 raising and lowering the reamer during a trip, these rounded  
11 domes act as a bearing surface to make sure that the sharper  
12 teeth do not gouge the casing. But when they rotate down hole,  
13 your Honor -- you'll see this in a second.

14 If you look at Slide 54 -- and these are figures  
15 I took out of Stabil Drill's brief, if you look at Figure 13 on  
16 the left-hand side, you can see the rounded dome that they chose  
17 purposely not to color because they're claiming that that's not  
18 a tooth, it sticks out -- there's a vertical line there showing  
19 the edge of those teeth -- it sticks out the exact same amount  
20 as the flat-faced inserts, just like Mr. Raley showed you with  
21 this ball peen hammer. I mean, these teeth are sort of embedded  
22 halfway.

23 So, really, you're looking at -- if you're  
24 looking at this thing coming at you, if you were the well, you  
25 would see a semi-circle flat-faced tooth there. Well, that's no

1 different looking at it, if it's coming at you, as a rounded  
2 dome. The profile is the same. It's a semi-circle. Whether  
3 it's flat or rounded, it's going to do the same thing  
4 (indicating) when it hits the earth.

11:08:14

5 It -- just because it's rounded doesn't mean it  
6 doesn't cut because this is tungsten-carbide. Some of them are  
7 even made out of poly-diamond crystalline, and they're harder  
8 than the earth, and they cut.

11:08:30

9 But what's interesting here is, if you look at  
10 the rounded domes on the green ones, the 310C there, and the red  
11 ones, Stabil Drill is, like, Oh, that's not a tooth because it's  
12 rounded.

11:08:47

13 If you look at the next slide, 55, and you  
14 compare the colors that they added to the various teeth from  
15 Figures 10 and 13 and compare it to the profile from Figure 12  
16 on the far right side, they color those rounded domes and call  
17 them teeth. You can see -- you can see the tooth, number 17, on  
18 Blade 3 colored green and Tooth Number 29 which is the second  
19 from the top, the red one, on Blade 4.

11:09:28

20 So, even Stabil Drill -- I've got the little red  
21 arrows there and the green arrows to show the corresponding  
22 rounded dome that sometimes they say it's a tooth, sometimes  
23 they say it's not. But they're teeth. These are inserts.  
24 They're called teeth. They're cutting teeth, and that's what  
25 they do.

11:09:46

1 Don't be fooled by the description of a rounded  
2 dome that has the same profile height as a flat-faced one in a  
3 commercial embodiment, which we filed an objection in our reply  
4 brief. Our licensee's advertising materials don't show what the  
5 inventors meant by these terms.

6 But just because a rounded dome might protect the  
7 casing when you're tripping in and out, it's going to just be a  
8 bearing surface to slide and not gouge, doesn't mean it doesn't  
9 cut when it's rotated between 60 and 240 RPMs, cause they do.  
10 They do put a rounded dome at the same height as the sharper  
11 flat-faced ones; and it does protect the casing. Because if you  
12 tripped in or tripped out and damaged that casing, you're going  
13 to have to redo that whole well or kick off somewhere above  
14 where you damaged the casing. So, they do both functions.

15 Now, the specification -- if you look at Slide  
16 56, this goes to this longitudinal argument. The specification  
17 never says anything about these blades being longitudinal. In  
18 fact, every embodiment disclosed describes it as a spiral  
19 orientation along the curved surface of the reamer.

20 So, Stabil Drill's attempt to interpret the blade  
21 as running longitudinal along the length of the reamer would  
22 exclude every embodiment, every figure in the patent, and is  
23 contrary to the express words of the preferred embodiment which  
24 is a spiral. Spiral is not the same thing as longitudinal.

25 Now, Slide 57 -- this is right out of our

1 brief -- the inventors of the Extreme patents neither set out a  
2 special definition, nor act as their own lexicographer. There's  
3 nothing in the written description that makes it clear that the  
4 invention does not include a particular feature. There's no  
5 words of manifest exclusion or restriction representing a clear  
6 disavow of claim scope.

7           And there's nothing of sufficient clarity to put  
8 one reasonably skilled in the art on notice that the inventor  
9 intended to redefine a claim term beyond the ordinary and  
10 customary meaning. None of those apply to the words in the  
11 specification, within the four corners of the document.

12           Now, the last piece of intrinsic evidence, your  
13 Honor, is the file history. Slide 58 is just a graph showing  
14 sort of the progression of these various patent applications  
15 through the PTO. As your Honor is well aware, there's an  
16 exchange back and forth between the Patent Office and the  
17 inventor's agent or attorney to prosecute the patent claims  
18 until the patent issues.

19           Now, the file history provides evidence of what  
20 the plain and ordinary meaning is and confirms that Extreme's  
21 construction is correct.

22           Now, like the specification, a statement in the  
23 prosecution history to be limiting has to be definitive -- not  
24 only be definitive but clear and an unmistakable disclaimer of  
25 claim scope. And where the prosecution history is subject to

1 more than one reasonable interpretation, then it can't be either  
2 definitive or clear an unmistakable disclaimer.

3 Now, I'm fixing to show you that Extreme's  
4 patents' prosecution history confirms that the plain and  
11:13:58 5 ordinary meaning of the disputed claim terms should be applied.  
6 First, we're going to talk about the Williams, Jr., patent. I'm  
7 at Slide 60.

8 This is an old reamer patent which the Patent  
9 Office in the reasons for allowance said was the closest prior  
11:14:14 10 art to the Extreme patents. The Williams' patent is a dual  
11 eccentric reamer. You can see that in the picture to the right,  
12 but the reamer sections are not on the opposite sides of the  
13 reamer body. You can see that they're both on the same side.

14 And what did the Patent Office say? The Patent  
11:14:34 15 Office has examiners which are usually engineers that have some  
16 kind of background in the technology. When he rejected the  
17 claims back on August 31, 2012, you can see that he said that  
18 the Williams' patent discloses a plurality of cutting blades;  
19 and you can see in the parenthetical he says ridges, 22, of  
11:15:05 20 Figure 8; ridges, 32, of Figure 9; and ridges, 38, of Figure 10  
21 which are emphasized to the right.

22 So, he says Williams, Jr., discloses cutting  
23 blades which are those ridges, those raised portions away from  
24 the body, of the tool, that those are cutting blades. Then,  
11:15:26 25 later, he says Williams also discloses a first reamer cutting

1 blades comprising an array of two or more cutting teeth; and he  
2 refers to teeth, 30, in Figure 8; teeth, 36, in Figure 9; and  
3 teeth, 39, of Figure 10.

4           So, the examiner understood that the claims --  
11:15:51 5 the patent claims have cutting blades and cutting teeth and that  
6 those are separate things, they're not the same; and he even  
7 points out a prior art in his rejection saying the prior art has  
8 cutting blades, these features. In addition, the prior art has  
9 blades that have teeth on them. They're not the same thing. A  
11:16:11 10 cutting blade is not the cutting teeth. They're separate.

11           Additionally, while Stabil Drill argues that a  
12 cutting teeth is a flat-faced insert, the examiner didn't think  
13 so because, if the Patent Office examiner presumed to be skilled  
14 in the art, understood a cutting to be -- understood a cutting  
11:16:32 15 tooth to be a flat-faced insert, Williams, Jr., doesn't have  
16 flat-faced inserts. They have little chisel-type teeth.

17           So, if a person of ordinary skill would  
18 understand a cutting tooth to be flat-faced or any specific  
19 shape, clearly, the Patent Office didn't think so because he  
11:16:53 20 relies on the Williams' prior art; and he says, Look, look at  
21 these little chiseled teeth mounted on the cutting blades.  
22 Those are cutting teeth.

23           If this Court -- if a person of ordinary skill  
24 understood those teeth to be flat-faced, he wouldn't have said  
11:17:08 25 those are teeth. So, teeth can be any type of insert on the



1 cutting blades. That's what the examiner understood when he  
2 prosecuted this patent.

3 Let's look at another one, Slide 61. This is a  
4 rejection by the Patent Office dated April 22, 2014, in view of  
11:17:33 5 the Presley patent. Like the Williams, Jr., the examiner said  
6 that Presley includes a plurality of cutting blades; and he  
7 identified them -- identifies them there in the parenthetical,  
8 110, 112, 114, 116, and 118.

9 Nowhere did he say the cutting blades are a row  
11:17:56 10 of cutting teeth that have flat faces as Stabil Drill, and he  
11 certainly didn't say they're longitudinal. And if you look at  
12 what those blades are, they're the radially extending portions  
13 of the reamer. They're at Figure 2 on the right.

14 He goes on to say that Presley further discloses  
11:18:17 15 each of the plurality of first reamer cutting blades comprised  
16 an array of two or more cutting teeth, 130. Again, cutting  
17 teeth are separate structures from the cutting blades. That's  
18 what the examiner understood; otherwise, he would have said,  
19 Look at these teeth. The teeth are the blades. But he didn't.  
11:18:38 20 He said, There's blades; and then, there's a separate thing  
21 called teeth.

22 Let's look at the next one, 62. This is a  
23 rejection in view of the Beaton patent. On June 5, 2013, the  
24 PTO rejected Extreme's patents in view of Beaton. And like  
11:19:11 25 Williams, Jr., and like Presley, he made a distinction between

1 the claimed cutting teeth and the claimed cutting blades.

2 Underlined in blue, he says, A first reamer  
3 having one or more cutting blades extending radially outward  
4 from the surface of the first reamer, parenthetical, B1 through  
5 B7. That's almost the exact claim language, cutting blades  
6 extending radially outward from the outer surface of the reamer.

7 He understood what a cutting blade was and  
8 identified it in the prior art. With respect to some of the  
9 dependent claims, you can see down here underlined in red,  
10 Claims 9, 11, and 12, he says, Beaton further discloses a  
11 plurality of cutting teeth, 124 and 224, on the cutting blades.  
12 Again, the examiner is confirming that these are separate  
13 structures, that a cutting blade is one structure and cutting  
14 teeth may be mounted on the blades.

15 Now, if you look at Slide 63, Stabil Drill in its  
16 brief relies on a statement by Extreme in response to this  
17 rejection. And I want you to focus back on Slide 62 for a  
18 second. It's important because the examiner says that the  
19 cutting teeth are 124 and 224. And if you look at the Figure 3  
20 on Slide 62, you can see those are the teeth on the reamer there  
21 of the Beaton patent.

22 In response, Slide 63, Extreme said Beaton states  
23 that only some of the blades, 22, include cutters, 124, 224,  
24 consistent with what the examiner said. The remaining blades,  
25 B3 through B7, on the other hand, include inserts, 122, on their

1 lateral outermost surface, referring to paragraph 28, comma, not  
2 cutters. So, what are not cutters is inserts, 122, on the  
3 lateral outermost surface.

4 Now, Stabil Drill took some liberties. I cut and  
11:21:39 5 pasted right out of their brief. They added the words "rounded  
6 dome" down here; but as you can see, looking at the actual  
7 office action response, the word "rounded domes" appears nowhere  
8 in Extreme's response to this office action. I just want to  
9 make sure that the Court understood that that was an insert by  
11:21:56 10 Stabil Drill. That is not part of the file history.

11 And I want to point out to the Court what -- what  
12 Extreme was talking about here. If you look at Slide 64, I've  
13 colored in red the inserts that Extreme was referring to, which  
14 are 122. Stabil Drill agreed that the cutters, 124 and 224,  
11:22:37 15 those are cutters, those are teeth. You can see those there in  
16 Figure 2 and Figure 3.

17 But on the lateral outermost surface, you can see  
18 these inserts, 122, which are different from the teeth, 124 and  
19 224. And if you look, the inserts, 122, do not extend beyond  
11:22:59 20 the outer diameter. These are flat-faced inserts. And if you  
21 look, Beaton describes these flush-mounted inserts, 122 -- this  
22 is in paragraph 128 -- I mean, paragraph 28 of the Beaton  
23 reference. It describes inserts, 122, as, quote, wear resistant  
24 inserts. Quote, the inserts, 122, reduce wear on the surface of  
11:23:30 25 the reaming blades, B3 through B7.

1                   So, these are not teeth. These are flat inserts  
2 that they mount on the edge of the blade to prevent the blade  
3 from being worn down. They're harder than the steel that  
4 they're mounted on. And how do we know that? Well, let's look  
11:23:53 5 at Figure 2. Look at the left-hand side. You can see where I  
6 put a little square in red on. There's no protrusion. You can  
7 just see, like, a little flat little mark there. The same thing  
8 if you look at the right-hand side. There's no protrusion of  
9 the insert. It's a flat-faced flush-mounted insert there.

11:24:11 10                   Look at Figure 3 which is a view of the tool  
11 looking down, and I've circled in red each one of the blades.  
12 You can see there's no protrusion of the blade beyond the edge  
13 of the blade itself. So, these aren't teeth and there is -- and  
14 the representation by Extreme that these aren't cutters, they're  
11:24:33 15 not. That's absolutely true. When you embed a flat-faced  
16 insert all the way to the surface, it is not a tooth, it is not  
17 a cutter. It's just there for wear resistance of the tool.  
18 This is used in lots of tools down hole.

19                   Let's look at Slide 65 because I'm going to show  
11:25:01 20 you how lots of these reaming tools do this exact same thing.  
21 Slide 65 is the Lyon patent. And the Lyon patent has the same  
22 type of flat-faced inserts that are embedded all the way into  
23 the wall. They're flush-mounted, flat-faced inserts. They're  
24 labeled 22. This is a Smith International patent. I think the  
11:25:25 25 Beaton is, too.

1                   It's interesting that they use the same numeral,  
2 instead of 122, it's 22; but you can see they call them flat-top  
3 tungsten-carbide inserts, 22; and they describe it as flat-faced  
4 inserts, 22, do not do any significant reaming of the bore hole  
11:25:43 5 because they're flat, they're flush with the edge of the tool.

6                   Now, contrast that with the rounded domes, 26,  
7 that are extending from the shoulder there. It says inserts,  
8 26, protruding from the tapered shoulder, 24, engage and enlarge  
9 the well bore during back-reaming operations.

11:26:07 10                   And then, it says at line 40 inserts, 26, are  
11 illustrated as round top or domed-shape in the preferred  
12 embodiment. So, the Lyon patent makes a distinction between  
13 protruding teeth or inserts that have rounded domes versus  
14 flat-faced, flush-mounted inserts which are not cutters.

11:26:30 15                   Similarly, the Knutsen patent -- I'm on Slide  
16 66 -- just like Lyon has both. He's got protruding reamers in  
17 the reamer section, which is labeled 3, which are rounded-dome  
18 inserts that protrude from the surface. They extend out. That  
19 is a cutting tooth mounted on a blade.

11:27:03 20                   At Section 2 which they call a stabilizer  
21 section, it says, If buttons are used -- I'm at line 51 on the  
22 flush inserts. If buttons are used, they should be flush with  
23 the surface of the stabilizer. That's consistent with the  
24 Beaton reference, the Lyon reference, and consistent with  
11:27:36 25 Extreme's argument to the Patent Office.

1 And again, this further shows what the Patent  
2 Office, what the examiners at the Patent Office through years of  
3 prosecution understood what a cutting blade was and a cutting  
4 tooth and what they're not. They understood that these were  
5 separate structures, that a blade -- a cutting blade is the part  
6 that extends away from the tool and that the cutting teeth may  
7 extend from the blade, may be mounted on; but the claims of the  
8 patent don't require it except for the dependent claims, not the  
9 independent claims.

10 And your Honor, that concludes our arguments  
11 today.

12 THE COURT: Thank you.

13 MR. BOWICK: Any questions you might have, I'll be  
14 happy to answer them.

15 THE COURT: I probably will; but before Ms. Dean gets  
16 bored and leaves --

17 Ms. Partridge.

18 MS. PARTRIDGE: Yes, sir.

19 First, I'm handing you the patent and then our  
20 slides. And she is -- Caitlin's going to -- I mean, Ms. Dean is  
21 going to give you a copy.

22 And you're going to give --

23 Yeah. Don't worry. We haven't forgotten you,  
24 Mr. Raley.

25 MR. RALEY: I'm memorable, if nothing else.

1 MS. PARTRIDGE: I know.

2 THE COURT: Yes, ma'am.

3 MS. PARTRIDGE: Good morning, your Honor. It is great  
4 to be back in person. Is it morning? Oh, it's still morning,  
11:29:15 5 barely.

6 THE COURT: Yes.

7 MS. PARTRIDGE: And just so you know the structure of  
8 the argument today, of course, I have to start because I have to  
9 say a few things -- I want to address just a few things up front  
11:29:28 10 that Extreme's counsel talked about; and then, Ms. Dean is going  
11 to go through a little bit of the technology. They did a good  
12 job describing most of it. So, we won't spend a lot of time on  
13 that. And then, I'll talk about cutting blade; and Ms. Dean  
14 will talk about the term "cutting teeth."

11:29:49 15 THE COURT: That's real specialization.

16 MS. PARTRIDGE: I know. I thought we were going to do  
17 the argument a little different way, your Honor; but if you  
18 don't mind if we change back and forth, thank you.

19 THE COURT: Continue on.

11:30:05 20 MS. PARTRIDGE: You can hear me, right?

21 Yes.

22 And let me just start with orienting the Court on  
23 what we're doing today. Today is a claim construction hearing,  
24 it's not a decision on whether or not something infringes. It  
11:30:21 25 is a claim construction hearing, and a lot of Extreme's

1 arguments were focused on the infringement piece of this issue.  
2 The issue today is how to define "cutting blade" and how to  
3 define "cutting teeth."

4 And we have to understand also that these are  
11:30:45 5 apparatus patents, they're --

6 THE COURT: Do you have some water? There's a carafe  
7 right there.

8 MR. BOWICK: I got plenty, your Honor. Thank you.

9 MS. PARTRIDGE: Are you good?

11:31:03 10 MR. BOWICK: I'm good.

11 MS. PARTRIDGE: And what we also have to keep in mind  
12 is these are apparatus claims, your Honor; they're not  
13 means-plus-function claims. They're apparatus claims. So, what  
14 the issue in claim construction is is what is the structure  
11:31:22 15 disclosed in the patents -- in Extreme's patents for cutting  
16 blade and what is the structure for cutting teeth.

17 And you know, Extreme's counsel started with  
18 this: The patent is a contract between the government and the  
19 patentee. The requirement for getting 20 years of coverage is  
11:31:45 20 that the patentee has to disclose their invention; and the way  
21 that is disclosed is, of course, in the patent document itself  
22 in the prosecution history.

23 And if you look at Stabil Drill's constructions,  
24 they are tied closely to the disclosure of Extreme's patents.  
11:32:08 25 And *Phillips*, the lead claim construction decision in the



1 Federal Circuit, says the specification is the most important  
2 guide to how to -- to how to interpret the claims. Prosecution  
3 history next. But if you look at these documents, you don't go  
4 outside of these documents and look at what is called extrinsic  
5 evidence.

11:32:32

6 And your Honor, the hammer, the knife, the  
7 experiment, all the patents that they went through, that is  
8 extrinsic evidence; and if the patent documents are clear, you  
9 don't use those for claim construction.

11:32:52

10 Another issue here today that was highlighted in  
11 Extreme's presentation is whether or not the domes cut. Your  
12 Honor, that is not a decision for today. The decision today is  
13 what are cutting blades and what are cutting teeth. Whether or  
14 not the domes cut is an issue later on on a motion for summary  
15 judgment or a jury trial. But today, that's not the issue. So,  
16 all of the evidence -- or all of the argument about whether or  
17 not domes cut is just not relevant to claim construction.

11:33:20

18 And also, I think you saw with the presentation  
19 that Extreme started with extrinsic evidence. We didn't even  
20 get to the patent documents until the end, and that's kind of  
21 the flip of the way you interpret claims. It's totally the flip  
22 of how you're supposed to interpret claims. You interpret  
23 claims based on the specification and the prosecution history,  
24 and we'll go through that today.

11:33:45

11:34:10

25 You know, Extreme talks about plain and ordinary

1 meaning; but again, the plain and ordinary meaning of terms have  
2 to be viewed in alignment with the patent documents and the  
3 patent disclosure.

4 Let me just go real briefly into one more issue  
11:34:28 5 before I let Ms. Dean talk, and that is, that Extreme seemed to  
6 think that there was a big admission by Stabil Drill, by me, by  
7 saying that there were blades on a reamer. Yeah, there's blades  
8 on a reamer.

9 The issue here, though, is not "blade," it's  
11:34:48 10 "cutting blade." And the blade is the -- on these reamers in  
11 the industry is the raised platform that contain inserts. They  
12 may contain cutting inserts, cutting teeth; or they may contain  
13 domes. But what makes a cutting blade is a blade, a raised  
14 structure, that contains cutters or cutting teeth. And you will  
11:35:14 15 see in Extreme's patents that every place they talk about  
16 blades, cutting blades, it is with -- made -- formed from sets,  
17 sets, of cutting teeth.

18 And the reason I highlight "sets of cutting  
19 teeth" is we're not saying cutting blades is the same as cutting  
11:35:36 20 teeth. We're saying, based on the disclosure of Extreme's  
21 patents, that cutting blades are formed from sets of cutting  
22 teeth; and your Honor, we'll show you -- I can show you more;  
23 but I think we have five or six places in the patent where it  
24 says it over and over and over again.

11:35:56 25 So, the fact that I said that there are blades on

1 the reamer or Mr. Teodorescu said there are blades on the  
2 reamer, that's not the issue. The issue is whether or not they  
3 are cutting blades. That's the term in the patent.

4 Finally, the testimony -- and I don't know how  
11:36:22 5 far you want me to go into this because, again, it's not  
6 relevant today whether or not the domes cut; but Mr. -- Extreme  
7 also seemed to say that our witness, Mr. Teodorescu, testified  
8 that the domes cut.

9 They just said that was an admission, and his  
11:36:42 10 testimony is -- what Mr. Raley tries to get him to say over and  
11 over in the deposition is that the domes cut; and he says, Well,  
12 it may affect the formation. And later when I talked to him, I  
13 asked him, Do the domes of the stabilizer section of the  
14 Smoothbore reamer cut? He says, No; and then, he explains why.

11:37:02 15 Again, that's not an issue today; but I don't  
16 want you to misunderstand that it was not an admission that we  
17 made during that testimony or that I made during a hearing to  
18 you, your Honor.

19 THE COURT: Yes, ma'am.

11:37:19 20 MS. PARTRIDGE: Okay. I'm going to let Ms. Dean talk  
21 for a little while.

22 MS. DEAN: Good morning, your Honor.

23 THE COURT: Good morning. Would you slide the base of  
24 the microphone just -- the base. It won't attack you, but you  
11:38:01 25 have to speak right into it.

1 MS. DEAN: Your Honor, as Ms. Partridge previewed,  
2 we're going to spend a lot of time walking through the patent --  
3 the specifications of Extreme's patent and explaining how each  
4 and every argument that Stabil Drill is making is rooted in the  
5 patent.

11:38:26

6 And the reason for this is that, if you go to  
7 Slide 14, the specification -- the Federal Circuit in 2005 in  
8 Phillips, which we've talked about --

11:38:39

9 THE COURT: Slow down. And you got the microphone,  
10 but you still have to speak up. You don't see Emmylou Harris  
11 singing like this (indicating). Or you can pretend anyone you  
12 want to be except me. That would ruin your reputation. Okay.

11:39:10

13 MS. DEAN: The Federal Circuit has held that the  
14 specification is always highly relevant to the claim  
15 construction analysis; and usually, it is dispositive. It is  
16 the single best guide to the meaning of the disputed term. So,  
17 that's going to be the focus of our discussion today.

11:39:27

18 And the specification including -- the  
19 specification -- the intrinsic -- it's called intrinsic  
20 evidence; and that's the specification, the prosecution file  
21 history, the claims. That together is taken; and the  
22 specification is the focus according to Phillips.

11:39:45

23 The other kind of evidence that we'll talk about  
24 is extrinsic evidence, and the law provides that only after  
25 reviewing the intrinsic evidence may the Court turn to extrinsic

1 evidence such as dictionaries, treatises, experts, and that sort  
2 of thing.

3           In most situations, an analysis of the intrinsic  
4 evidence alone will resolve any ambiguity in a disputed claim  
11:40:05 5 term; and in such circumstances, it is improper to rely on  
6 extrinsic evidence, particularly, where it contradicts the  
7 intrinsic record.

8           So, where the specification is clear, that's all  
9 you need to look at to construe the claims; and we're going to  
11:40:19 10 walk through for each term how -- how the -- or how Stabil  
11 Drill's definition is supported by the specification of the  
12 patent.

13           Before we do that, I'm going to zoom out just a  
14 little bit and focus just on the technology at issue, the  
11:40:39 15 eccentric reamer technology, and give a little bit of context;  
16 and then, we're going to dig right into the patent.

17           So, if you go to Slide 3 -- so, I'm going a  
18 little bit out of order here. But if you go back to Slide 3,  
19 you'll see an earlier version of an eccentric reamer that was  
11:41:01 20 patented by Baker Hughes.

21           And one of the things that we're showing here --  
22 now, Ms. Partridge is going to explain how this is rooted in the  
23 specification; but one thing you'll see here is that these  
24 blades are longitudinal. So, they're running along the axis of  
11:41:15 25 the reamer. In this drawing, they're going sort of top to

1 bottom; and the reamer is running top to bottom of the page.

2 And then, if you turn to another example of  
3 another reamer that's on the market, it's the Expro AERO  
4 eccentric reamer; and you'll see similarly that the blades are  
5 running generally along the same axis longitudinally as -- as  
6 the length of the reamer. So, here, it's left to right; but  
7 it's sort of the same principle.

8 And then, if you go to page 5, this is  
9 specifically the context. Extreme's Drill-N-Ream is the  
10 commercial embodiment of Extreme's patent which we're going to  
11 be spending a lot of time looking at today; and you'll see that  
12 there are two -- two cutting sections; and the blades on those  
13 cutting sections are longitudinal. They run along the axis  
14 generally longitudinally; and here, it's top to bottom. So,  
15 you'll see them lined up like that.

16 In contrast, if you look at Stabil Drill's  
17 Smoothbore reamer which came about in around 2018, you can see  
18 that the blades -- so, there's a top section which is a  
19 stabilizer section with the domes there in red and, then, a  
20 bottom section which is the cutting section; and the cutting  
21 teeth are in black. But you'll see that the inserts are  
22 circumferential.

23 So, they -- so, instead of going generally up and  
24 down as the reamers oriented in this figure, they're going side  
25 to side, sort of around the reamer; and if you turn to Slide 7,

1 at a high level you can sort of see what we're going to be  
2 explaining.

3                   Now, we're not -- we're not having this  
4 discussion to talk about infringement; but what we're going to  
11:43:26 5 do -- and Ms. Partridge is going to do that as she talks about  
6 cutting blades -- is how the patent requires this longitudinal  
7 alignment of the cutting blades.

8                   And that's sort of described by the commercial  
9 embodiment, the Drill-N-Ream, the patents; and then,  
11:43:43 10 historically, you can see that, until the Smoothbore reamer,  
11 which is Stabil Drill's reamer, in the industry it was  
12 longitudinal blades. And so, that provides a little bit of the  
13 context in which to view this discussion and to view the  
14 specification.

11:44:04 15                   The other concept that I want to touch on is how  
16 -- is shear versus compression drilling. So, we've talked a lot  
17 earlier today -- Extreme talked a lot about different kinds of  
18 tools, and one thing that is going to be relevant to our  
19 discussion today is how those tools work and what's relevant and  
11:44:26 20 what's not relevant.

21                   So, if you turn to Slide 9, you'll see a picture  
22 -- this is not a reamer, but it's showing a PDC shear bit; and  
23 you see that the -- the structure that's labeled PDC cutter has  
24 a flat surface generally facing the path of movement. So, in  
11:44:47 25 this figure, it's cutting from right to left; and it's shearing

1 away the formation as it moves from right to left on the page.

2 And that -- that dark gray area is the tooth; and  
3 then, you see that sort of black area. And that's the -- that's  
4 the flat-faced cutting surface that is making the cut in the  
5 formation; and you see it's mounted on a bit body. So, this is  
6 not intended to be a reamer; but it's intended to show how a PDC  
7 shear -- shear cutter cuts the formation.

8 In contrast, you've heard a little bit about, if  
9 we move to Slide 10, roller-cone bits; and roller-cone bits in  
10 contrast fill the formation by crushing rather than cutting and  
11 shear. They rely on the weight of the drill string to crush the  
12 formation.

13 And we have this video referenced in our brief;  
14 but you know, I won't spend too much time on it. We can pull it  
15 up if you like; but essentially, that difference is relevant  
16 here, whether you're talking about cutting and shear or filling  
17 the formation in some other way; and we'll explain that as we  
18 walk through the specification. But we wanted to sort of  
19 preview that concept before we dig into the specification.

20 And now, I'm going to let Ms. Partridge start the  
21 discussion of cutting blades.

22 MS. PARTRIDGE: So, I'm on page 16, your Honor.

23 THE COURT: What about 12?

24 MS. PARTRIDGE: That was a video, but we haven't been  
25 able to figure out how to make things run today. It, basically



1 -- I believe Extreme and we used it in our claim construction  
2 briefs; and it just, basically, explains how reamers operate.  
3 If you want us to, we can try to pull it up in a little while.  
4 We were having trouble getting on WiFi and getting the videos  
5 running. I probably should have checked that before I came.

11:47:07

6 THE COURT: It's all right. I'm a little old  
7 fashioned.

8 MS. PARTRIDGE: Well, that's fine with me. I will  
9 tell you that, if you look at anything -- the video, it's about  
10 40 -- no. The -- about 40 seconds. It's showing the difference  
11 between shear cutting --

11:47:19

12 What page is that on, Caitlin?

13 -- and crushing with the roller-cone bit because  
14 that's what's import -- the reason we're telling you that, your  
15 Honor, is all this testimony about roller-cone bits and that  
16 they're the same as what is going on in this case is just not  
17 true, your Honor, technically.

11:47:34

18 Shear cutting is a different way of cutting than  
19 crushing with the roller cone where there's -- I can't even  
20 remember how many pounds of pressure are on the bit that cause  
21 it to -- to pound the formation into -- and to cause it to fail  
22 by compression.

11:47:55

23 That video is on page 6, and we can -- we can  
24 play that on -- we can give you her computer and play that for  
25 you, if you're interested.

11:48:14

1 THE COURT: That one?

2 MS. PARTRIDGE: Is it page 6?

3 MS. DEAN: Page 6 of the responsive brief.

4 MS. PARTRIDGE: No, no. The slide.

11:48:36 5 I'm sorry, your Honor.

6 This is the video referenced on page 11 of the  
7 slides -- Slide 11.

8 THE COURT: Slide 11?

9 MS. PARTRIDGE: Yes.

11:48:54 10 Do you want to pull it up?

11 THE COURT: Have they seen it?

12 MS. PARTRIDGE: Yes. I have told Extreme's counsel  
13 that we were planning on using this today.

14 MR. BOWICK: No objection, your Honor.

11:49:25 15 THE COURT: I just wanted to know if you want to see  
16 it again.

17 MR. BOWICK: No, your Honor. I've seen it already.

18 (Video was played.)

19 MR. PARTRIDGE: I think it was pretty clear -- I  
11:50:06 20 didn't know --

21 Thank you.

22 I didn't know, you know, what place that it  
23 changed from a shear cutting -- the shear cutting bit which was  
24 the first -- that's a PDC shear cutting bit -- to the  
11:50:13 25 roller-cone bit. And you can see it's just different -- it's

1 just different physics, it's different technology; and anything  
2 regarding --

3 THE COURT: It's the same physics. Physics doesn't  
4 change.

11:50:23 5 MS. PARTRIDGE: Okay, okay. I'm sorry. That is a  
6 great point. But different application of physics. Is that  
7 better? And as a result, it talked about the roller-cone bits;  
8 and what happens with roller-cone bits are just not relevant  
9 here today, your Honor. That was the main point there.

11:50:48 10 What is relevant --

11 THE COURT: Okay. Where are we now?

12 MS. PARTRIDGE: We're on page 16.

13 THE COURT: Cutting blades?

14 MS. PARTRIDGE: Yes, your Honor. And this is -- this  
11:50:58 15 is just our presentation on what comprises cutting blades. Page  
16 17 -- I think we've already gone through this -- talks about the  
17 differences in Extreme's construction and in Stabil Drill's  
18 construction.

19 And basically -- probably the only point I want  
11:51:17 20 to make from their argument here, unless you want me to read the  
21 slide to you, is that we are not defining cutting teeth and  
22 cutting blades as the same thing. We are defining cutting  
23 blades as formed from sets of cutting teeth. And I think you  
24 will see that disclosure over and over in the patents today,  
11:51:40 25 your Honor.

1           Again, we are also saying that the cutting blades  
2 themselves need to be aligned longitudinally along the surface  
3 of the reamer; and your Honor, that's just what's disclosed in  
4 Extreme's patents. There's nothing else disclosed in Extreme's  
5 patents other than blades that are aligned longitudinally along  
6 the surface of the reamer and cutting blades made out of sets of  
7 cutting teeth.

8           So, let's turn to Slide 18. And on Slide 18 is  
9 Figure 10 of Extreme's patents, and this is the cutting section  
10 of one of the embodiments of the eccentric reamer in Extreme's  
11 patents. And as you can see, there are four blades. I didn't  
12 put these words on here, your Honor. These are -- these are  
13 from the patents themselves.

14           And so, you can see that there's -- we  
15 color-coded it because it was easier for me to understand -- is  
16 that -- so, we added the color -- is 310A is a set of cutting  
17 teeth that make up Blade 1. 310B is a set of cutting teeth that  
18 make up Blade 2.

19           And it's easier to see on Blade 3, but 310C is a  
20 set of cutting teeth that make up Blade 3. And you can see  
21 that, at least in this -- this embodiment and in every  
22 embodiment, that these are circular, the teeth; and they're  
23 flat. They're two dimensional.

24           And you can see, also, that there's a fourth  
25 blade here; and that's -- I can't read it because -- and that's

1 a set of cutting teeth, 310D. And you don't have to take my  
2 word for it, your Honor.

3 The next slide, page 19, is from Extreme's  
4 patents; and it's at -- I mean, if you want the cite, it's on  
11:54:00 5 Column 5, lines 9 through 12 of their '205 patent. And it says,  
6 Figure 10 illustrates an embodiment of the reamer having four  
7 sets of teeth, 310 -- so, that's what we talked about -- with  
8 each set -- with each set, 310A, 310B, 310C, and 310D, arranged  
9 in a spiral orientation along the curved surface of the reamer.

11:54:30 10 And you're right, it's -- it does say that it's  
11 spiral; and we're not arguing whether or not it's spiral. You  
12 can see in Figure 10 here that there is a little bit of a spiral  
13 here. Our point is that even the spiral part is at a  
14 longitudinal alignment along the surface of the reamer and,  
11:54:55 15 also, that each blade is formed from a set of cutting teeth.

16 Let's go to Slide 20, and this is also from  
17 Extreme's patents. It's the same -- it's also describing Figure  
18 10, just more description of Figure 10. And so, I'm going to  
19 read just a short piece of this; and then, I'll paraphrase it  
11:55:23 20 some. That the teeth, 310, of each set, each set of teeth,  
21 310A, 310B, 310C, and 310D, may form one of four blades for  
22 cutting away material from the near surface of the well bore.

23 And then, you can see set 310A of teeth may form  
24 Blade 1; set 310B may form Blade 2; 310C, Blade 3; 310D, Blade  
11:56:06 25 4. Here the patent is saying that the blades are formed from

1 sets of cutting teeth.

2                   And now, evidently, Extreme's counsel and me  
3 interpret the next words a little differently because, when I  
4 hear "configuration of the blades and the cutting teeth  
11:56:31 5 thereof," to me, the way I interpret that is that the cutting  
6 teeth are part of the cutting blades, the cutting teeth thereof.  
7 So, this is an explanation or a description in the patent that  
8 the cutting blades are formed by cutting teeth thereof.

9                   Let's turn to 21, Slide 21. This is another  
11:57:04 10 embodiment of the reamer. It's a depiction. This clearly --  
11 this is just -- it's a side view of the reamer. So, the reamer  
12 that we saw -- I should put these all down; but I'm scared  
13 they're all going to fall on the floor.

14                   So, in Slide 18 is Figure 10. So, this is just a  
11:57:30 15 depiction of the side view of that reamer.

16                   THE COURT: Wait a minute. I'm on page 21.

17                   MS. PARTRIDGE: Yes, your Honor. And I was just  
18 saying this is a depiction of the side view of the reamer  
19 embodiment that was -- that was shown on Slide 18. What this is  
11:57:50 20 showing is a side view of each of the blades; and each of the  
21 blades you can see -- again, I highlighted it; but this is what  
22 the figure shows, that, you know, set of teeth, 310A, is --  
23 forms Blade 1; and 310A, you can see 1 through 8 are the cutting  
24 teeth that make up Blade 1.

11:58:16 25                   These are showing -- these are depicting here the

1 flat surface, the flat circular surface, of the teeth as they  
2 are coming into contact with the well bore; and that would be in  
3 this drawing at the bottom of each of Figure 12A, Figure 12B,  
4 Figure 12C, and Figure 12D. So, as you can see, what this shows  
11:58:45 5 is that the blades here are formed from sets of cutting teeth.

6 And again, you don't have to take my word for it.  
7 Let's look at the patent, and that's Slide 22. It says, As  
8 shown in Figures 12A through 12D, which we just looked at, 30  
9 cutting teeth, numbered 1 through 30, may be distributed among  
11:59:15 10 Sets 310A, Sets 310B, Sets 310C, and Set -- and 310D of cutting  
11 teeth forming four blades.

12 Now, Figure 11 is a top view. So, we're looking  
13 at the top of the reamer here; and you're looking -- you're  
14 looking -- well, it's at the top. So, you're looking down and  
11:59:49 15 -- that didn't make sense; but you're looking down from a top  
16 view of the reamer.

17 And what this is depicting, your Honor, is -- you  
18 know, I think Extreme's counsel may have said that there's  
19 nothing showing like the degree of the -- of the alignment  
12:00:05 20 longitudinally. Well, what this is showing is the degree of  
21 alignment longitudinally because you can see Blade 1 and those  
22 eight cutting teeth of Blade 1; and they are -- from the top  
23 tooth to the bottom tooth, they are aligned longitudinally along  
24 the reamer 35-degree rotational difference, between -- a  
12:00:33 25 35-degree rotation.

1                   So, you hit the first -- the top of the cutting  
2 teeth at Degree 1; and you hit the bottom of the cutting teeth  
3 at -- as it rotates around 35 degrees. And you can see it's  
4 between 30 and 35 degrees, the top to the bottom tooth, for each  
12:00:57 5 blade. And again, it shows the blades, your Honor; and it shows  
6 the cutting teeth.

7                   And again, you don't have to take my word for it.  
8 It's -- I'm on 24, Slide 24; and this says as plotted in Figure  
9 11. So, we had previously looked at 12; but now, they're  
12:01:19 10 plotting it in Figure 11. The cutting teeth, numbered 1 through  
11 8, may form Blade 1. I could read all this; but it says,  
12 Cutting teeth form Blade 2, cutting teeth -- I'm not trying to  
13 mischaracterize -- cutting blades -- cutting teeth form Blade 3,  
14 and cutting teeth form Blade 4.

12:01:40 15                   This is what the patent says, your Honor. This  
16 is what the patent is telling someone in the public who wants to  
17 review this and understand what Extreme patented so they can  
18 design around or they can make a different reamer.

19                   Let's keep going. Figure 5. That's on Slide 25.  
12:02:02 20 This is in -- this is Figure 5 in Extreme's patent. This is a  
21 different embodiment. It's Embodiment, 104, of a reamer; and  
22 again, this is a side view of the reamer; and you can see what's  
23 highlighted here are the cutting teeth.

24                   What it's trying to show is how the cutting teeth  
12:02:26 25 -- when they rotate, it's showing them lined up behind each



1 other because the whole purpose is, the first blade, they have,  
2 like, cutting tooth, cutting tooth, cutting tooth, cutting  
3 tooth. The second blade, they want -- that didn't work very  
4 well, but they want the blades -- the teeth to be lined up  
12:02:45 5 between the teeth on Blade 1 because they're trying to cover the  
6 whole area.

7                   So, this, to me, is a little confusing. It took  
8 me a while looking at it, but I'm real clear that's what it is  
9 now because some of these -- the ones that are in -- you know,  
12:02:59 10 fully formed with the line is one set. And then, they got a  
11 dotted line that's the second set. And then, they got a double  
12 dotted line that's the third set.

13                   But what it's showing is the teeth are lining up;  
14 and what you're trying to do is, with each tooth that comes  
12:03:17 15 through, you're trying to cut the area that was missed with the  
16 first blade.

17                   Again, you don't -- the patent describes Figure 5  
18 as -- it says it illustrates the layout of the teeth. This is  
19 Slide 26, your Honor.

12:03:31 20                   THE COURT: Yes, ma'am.

21                   MS. PARTRIDGE: And it illustrates the layout of the  
22 teeth, and this is along reamer, 104, that we talked about.  
23 It's an embodiment -- another embodiment in the patent, your  
24 Honor. Four sets of teeth, 110 again. Again, Sets 110A, 110B,  
12:03:49 25 110C, and 110D are on the reamer surface; and again, you can see

1 Sets 110A, Sets 110B, Sets 110C, and Sets 110D of teeth that  
2 make up the cutting blades.

3 Slide 27, it's a different reamer embodiment in  
4 the patent, your Honor; and this is -- you can see it more  
12:04:22 5 clearly in Figure 9. But in Figure 8, it talks about Set 1.  
6 It's not highlighted. It should have been, but it says Set 1 at  
7 the top left. That's talking about the Set 1 of the teeth --  
8 no, that's Set 4. I can't see.

9 Do you see the top left?

12:04:42 10 THE COURT: Figure 8.

11 MS. PARTRIDGE: Yes, sir. Right below Figure 8 is  
12 showing Set 4, Set 3, Set 2, and Set 1; and these are sets of  
13 cutting teeth that make up the blades. Again, it's a top view.  
14 And what this is, basically, showing, your Honor, is just how  
12:05:01 15 the blades are -- are distributed along the reamer surface.

16 And Figure 9 also shows the different sets of  
17 teeth on a side view of the reamer. So, you can see on the next  
18 slide, which is Slide 28, again, Figures 8 and 9 that we just  
19 looked at illustrate the location and arrangement of Sets 1, 2,  
12:05:30 20 3, and 4 of teeth.

21 And then, it talks about -- it shows the relative  
22 angles that we talked about, just where along the diameter  
23 you're going to put Blade 4, you're going to put Blade 3, you're  
24 going to put Blade 2, and you're going to put Blade 1. And so,  
12:05:55 25 it's showing the relative position of the individual teeth of

1 each of Sets 1, 2, 3, and 4 of teeth.

2 And your Honor, something I probably forgot to  
3 say for all of these slides -- and we can go back through them  
4 -- is every time these blades are arranged along the reamer  
12:06:11 5 surface, they're arranged longitudinally. You can see this from  
6 every figure that I've shown you.

7 So, on page 29 -- Slide 29, we're looking again  
8 at Figure 9, which we just looked at; and again, this shows  
9 longitudinal teeth. You can see where they're highlighted on a  
12:06:31 10 side view of the reamer. And again, it talks about Sets 1, 2, 3  
11 and 4 of teeth. Set 2 of teeth, Set 3 of teeth, Set 4 of teeth,  
12 Set 5 -- I went too far -- Set 4 of teeth. So, here, they're  
13 showing four sets of teeth that form the cutting blades. And  
14 again, it shows that it's longitudinal along the axis of the  
12:07:02 15 reamer.

16 Let's turn to Figure 13. That's on Slide 30.  
17 This is in Extreme's patents. And it shows a reamer embodiment,  
18 300. This is a different reamer. And Figure 13, again, it's  
19 showing the blades. I didn't write that in there. I did  
12:07:16 20 highlight it; and it's showing, again, the same thing we  
21 discussed before, your Honor, is these blades are made of sets  
22 of cutting teeth. And they are aligned longitudinally along the  
23 surface of the reamer.

24 What this may -- you can see on the right-hand  
12:07:35 25 side it's talking about the side cut which is a shear cut. That

1 is where each blade is -- is impacting the formation, is going  
2 to cut the sides of the formation. And you can see here, also,  
3 if you look at the red, which is Blade 4 -- it's showing Blade 4  
4 in the side-cut position. You can see the flat round -- or at  
12:08:04 5 least, here the round flat cutting surfaces of the teeth  
6 depicted in Figure 13.

7           Again, the patent describes Figure 13; and that  
8 is on Slide 31. So, this is reamer, 300, like I said, a  
9 different embodiment; and it's shown that teeth, 31A, of Blade 1  
12:08:30 10 -- now, that's on the left-hand side of the reamer. So, Blade 1  
11 has already rotated from right to left on this drawing. So --  
12 so, Blade 1 is on the left-hand side of this drawing.

13           Blade 2 is following Blade 1, again, sets of  
14 teeth, 310B; and then, Blade 3 is following Blade 2. That's Set  
12:09:00 15 310A -- C of the teeth. And then, Blade 4 is shown in the  
16 cutting position at the time on this drawing; and it's on the  
17 right-hand side; and it's following behind Blade 3.

18           Let's turn to Slide 32. Now, this slide is just  
19 taking and showing individually each blade as it's coming into  
12:09:28 20 the side-cut position, into the position to cut the well bore on  
21 the right-hand side. That's shown on the right-hand side of  
22 each of these figures.

23           And you can see, again, Blade 1. First, it's  
24 longitudinally or it wouldn't be able to work like they're  
12:09:47 25 talking about in the patent; and you can see the flat cutting

1 teeth that are coming through to cut and shear the side of the  
2 well bore. And you can see this -- this shows very well the  
3 progression of the blades, your Honor, through the well bore.

4 This is how the patent is describing how the  
12:10:09 5 blades impact the formation, Blade 1, Blade 2, Blade 3, and  
6 Blade 4. You can't describe this without them being aligned  
7 longitudinally, your Honor. You just can't do that.

8 Let's turn to 33.

9 Basically, here, Figure 14D is talking about the  
12:10:33 10 extent of Blade 1, 2, 3, and 4 and the sequence of blades coming  
11 into the cutting contact with the near surface of the well bore.

12 So, I want to pick up one more issue regarding  
13 this on Slide 34. I would have -- I was going to highlight -- I  
14 was going to try to highlight this slide; but unfortunately, if  
12:11:00 15 I highlight it, then, I can't read anything. So, it is  
16 important to show that there are four blades, Blade 1, Blade 2,  
17 Blade 3, and Blade 4.

18 And remember, Blade 1 comes into cutting contact,  
19 Blade 2 follows it, Blade 3 follows Blade 2, and Blade 4 follows  
12:11:19 20 Blade 3; and a requirement -- you'll see this in Extreme's  
21 patents -- is that every blade after -- let me make sure I say  
22 this properly; and if I don't, I'll, hopefully, correct myself.  
23 Every blade after Blade 1 has to extend from the surface of the  
24 reamer, at least, that length or greater.

12:11:41 25 That makes sense, your Honor, because of the

1 torque, right? Because the first blade is going to take the  
2 first cut at it, right? So, it's going to take -- it's a little  
3 shorter than the second blade potentially and then the third  
4 blade and the fourth blade. So, it helps with the torque  
12:11:57 5 because you're not cutting as much of the formation each time.

6 So, the first blade has to be a distance --  
7 whatever the distance is. Here, it talks about the first blade  
8 is -- this is in the second line -- 5 1/4 inch to 5 1/2 inch  
9 diameter. Do you see that on the second blade? That's the --  
12:12:20 10 that's how -- that's the extent of Blade 1.

11 Then, you see Blade 2 is 5 3/4 to 6 inches. So,  
12 it's a little bit -- it's a little bit longer than Blade 1 when  
13 it comes through behind Blade 1. And then, you see Blade 3 and  
14 Blade 4 here at full -- they call it full gauge but at 6 1/8  
12:12:36 15 inch.

16 So, it's important -- I'll tell you why it's  
17 important, your Honor. Because, first, you can't do this  
18 without having the blades, at least, longitudinally aligned.  
19 So, you can't follow what this patent is saying unless these  
12:12:54 20 blades are longitudinally aligned.

21 And on page 35, this was added during  
22 prosecution. This limitation was added in prosecution, and  
23 there's no argument here from Extreme either to obtain these  
24 patents. And you can see the first cutting blade extends a  
12:13:19 25 first distance, and each additional blade -- cutting blade

1 extends an equal or greater distance than the preceding cutting  
2 blade.

3                   So, that's exactly what we're talking about in  
4 the claims for how these blades have to be aligned  
12:13:35 5 longitudinally or they don't work, your Honor, like the patent  
6 says. They might work in a different context but not how  
7 Extreme is disclosing it in this patent.

8                   And I -- 36 -- Slide 36, this is just -- you  
9 know, you could argue it's boilerplate because every patent  
12:13:55 10 says, Oh, we can have all kinds of different ways of doing this;  
11 but let's look at this because it's pretty important. This  
12 isn't standard boilerplate. The location and arrangement of  
13 sets of teeth and teeth within each set.

14                   So, we're talking about sets of teeth, your  
12:14:17 15 Honor, sets of teeth, sets of teeth, sets of teeth; and then, it  
16 says, Well, the alignment of the sets of teeth could be  
17 different. The distance between the teeth and the sets of  
18 teeth, they could be maybe a little different. The diameter of  
19 the rotational path of the teeth, the number of teeth, the sets  
12:14:37 20 of teeth, shape and eccentricity of the reamer surface holding  
21 the teeth.

22                   So, the point here is you got to have teeth, your  
23 Honor. You got to have teeth to make these blades, and this  
24 patent discloses that the blades are formed -- the cutting  
12:14:53 25 blades are formed from sets of cutting teeth.

1 I was going to turn now, unless you want to  
2 break, which is fine if you don't, to just addressing some of  
3 Extreme's argument on cutting blades.

4 THE COURT: On what?

12:15:11 5 MS. PARTRIDGE: Some of Extreme's arguments on cutting  
6 blades just to talk about Extreme's construction of cutting  
7 blades.

8 THE COURT: Progress, please.

9 MS. PARTRIDGE: Okay. I'm on page -- I'm on Slide --  
12:15:26 10 well, I'm on Slide 38, your Honor. And your Honor, let me first  
11 say I didn't go through every sample in the patent. There's  
12 more, and Ms. Dean will cover those. And you can see that every  
13 one of them shows cutting blades formed from sets of cutting  
14 teeth.

12:15:51 15 And I submit, your Honor, that Extreme's proposed  
16 construction of cutting blades impermissibly broaden the claims  
17 beyond cutting blades not formed from sets of cutting teeth. In  
18 fact, they've been arguing that all day, that you don't need  
19 that to be cutting teeth.

12:16:09 20 But if you look at the specification, that's what  
21 you need. In fact, part of the issue here is Extreme's  
22 construction is so broad that it, basically, would cover  
23 anything extending from the reamer surface that cuts. And if  
24 you look at the specification of the patents, that's just not  
12:16:27 25 what's disclosed in the patents, your Honor.



1                   So, Extreme argues that Stabil Drill's  
2 construction -- this is page 39, your Honor -- Slide 39, your  
3 Honor. So, you heard -- they argue that we are trying to limit  
4 it to the preferred embodiment of Extreme's patents. I'm not  
12:16:52 5 sure how many embodiments I just showed you of Extreme's  
6 patents, and there are some more.

7                   But suffice it to say, there is not an embodiment  
8 or disclosures in Extreme's patents that show anything other  
9 than cutting blades formed from sets of cutting teeth or showing  
12:17:08 10 anything other than blades aligned longitudinally along the  
11 reamer surface.

12                   And you can see one of the lead cases in the  
13 Federal Circuit, *Abbott*, talks about that the claims cannot  
14 enlarge what is patented beyond what the inventor has described  
12:17:28 15 as his invention. And you may limit the claims to what is  
16 clearly indicated by the specification -- I'm sorry, by the  
17 specification. It says the claims, the specification, or the  
18 prosecution history. So, either of those clearly indicate that  
19 the invention encompasses no more than that confined structure  
12:17:52 20 or method.

21                   And your Honor, I can't find anywhere that  
22 anything other than cutting blades formed from sets of cutting  
23 teeth and aligned longitudinally along the surface of the reamer  
24 is disclosed in Extreme's patents.

12:18:08 25                   We talked about -- oops, I think it's just one

1 more -- well, maybe two more issues that Extreme brought up.  
2 I'm going to try to make this a little shorter than I wanted to  
3 initially, but Extreme says there's nothing in the prosecution  
4 history that limits their claims -- or that limits cutting  
5 blades to being formed from sets of cutting teeth.

12:18:33

6 But your Honor, there is a definitive statement  
7 in the prosecution history. Extreme originally had cutting  
8 blades that comprise an array of two or more cutting teeth.  
9 Those were the original claims. The Patent Office rejected  
10 those claims based on a lot of things but not about teeth, not  
11 about blades making up cutting teeth.

12:18:53

12 And then, the original claims were rewritten to  
13 distinguish the prior art. But the definitive statement -- and  
14 I'll show it to you in Extreme's prosecution history -- is no  
15 new matter has been added, no new matter has been added.

12:19:13

16 Everything in the patent, everything the patent shows are  
17 cutting blades made from cutting teeth aligned longitudinally.  
18 And you can see here under *Omega Engineering* that the public is  
19 allowed to rely on definitive statements by the patentee.

12:19:37

20 Let's look at that statement, so you don't have  
21 to take my word for it, on Slide 41.

22 So, Extreme amends its claims to say cutting  
23 blades and to add the counter to rotation. And what it says to  
24 the Patent Office to get its patents is Support for the  
25 amendments can be found throughout the specification and

12:20:01

1 original claims, and the original claims were cutting blades  
2 formed from sets of cutting teeth. And it says, for example,  
3 Support can be found in Figure 7 and the related description and  
4 the definitive statement; thus, no new matter has been added.

12:20:27 5 Let's look at Figure 7 real quickly, your Honor,  
6 because it says Figure 7 --

7 THE COURT: Figure 7?

8 MS. PARTRIDGE: I'm sorry?

9 THE COURT: Figure 7?

12:20:36 10 MS. PARTRIDGE: Figure 7 which I'm going to show you  
11 on the next page because in this statement to the Patent Office  
12 Extreme said support can be found in Figure 7. And so, Figure 7  
13 is on Slide 42.

14 Do you see it, Slide 42?

12:20:58 15 THE COURT: I've got the picture.

16 MS. PARTRIDGE: Yes. I'm sorry, I'm holding up the  
17 wrong one. Here's Figure 7. Just to confuse you, your Honor,  
18 because that's really a smart court tactic.

19 So, let's look at Slide 42, Figure 7. Here's  
12:21:14 20 another one that discloses blades made out of cutting teeth,  
21 your Honor. As you can see here, this is -- it's a little hard  
22 to see, but it's a top view of the reamer, and it's showing both  
23 reamer sections. So, remember, Extreme's patents require two  
24 cutting sections.

12:21:30 25 And you can see where it's 102 is on the top of

1 this highlighted -- that is one reamer, one cutting reamer --  
2 and 104 which is the --

3 Which one is the upper and lower? I can't  
4 remember.

12:21:45 5 I think 104 is the upper. So, what it's just  
6 showing is the teeth extending from this reamer and this reamer;  
7 and it's a top view of it.

8 You can see here on 43, Slide 43. Again, this is  
9 the patent, your Honor, not Jayme Partridge on patents.

12:22:08 10 Figure 7 illustrates a reaming tool having two  
11 eccentric reamers, 102 and 104. Also, in here -- so, it's  
12 important because 102 and 104 are the reamers that they're  
13 showing. So, let's go to Slide 44. And you can see Slide 44 is  
14 discussing bottom reamer, 104. So, that's one of the reamers  
12:22:39 15 that was in Figure 7.

16 What does it say about Figure 5? It says there  
17 are four sets of cutting teeth, 110 -- of cutting teeth, 110,  
18 Sets 110A, 110B, 110C, and 110D; and you can see, again, the  
19 bottom one, Figure 5, which is bottom reamer 104 shown in Figure  
12:23:07 20 7 Sets 110A, 110B, 110C, and 110D of teeth.

21 Now, I think you remember from Reamer 7 -- that  
22 Figure 7 we were looking at there were two reamers. There was a  
23 bottom reamer, 104. There's also 102, Reamer 102. Let's look  
24 at Reamer 102, from the patent.

12:23:30 25 Reamer 102, is shown on Slide 45, and it's shown

1 in Figure 3. It says Figure 3 is Reamer 102. And it shows that  
2 each of the reamers, 102 shown and 104 not shown, preferably has  
3 an outermost radius, R3, generally, in the area of its teeth.  
4 So, we're talking about teeth here, your Honor. We're talking  
12:23:59 5 about cutting blades formed from sets of cutting teeth.

6 Okay. Let's turn to one more Extreme argument  
7 regarding cutting blades. It's the issue with claim  
8 differentiation. And your Honor, because of the little bit odd  
9 prosecution history here, I would submit that that claim  
12:24:23 10 differentiation doesn't apply in this case.

11 It's a presumption, and it's a presumption that  
12 will be overcome when the specification or prosecution history  
13 dictates a contrary construction. And here, everything in the  
14 patent, everything a person would rely upon to see what this  
12:24:41 15 patent discloses, discloses cutting blades made from sets of  
16 cutting teeth; and they're longitudinally aligned along the  
17 surface of the reamer.

18 Do I need to do anything else on cutting blades?

19 I'm just asking Ms. Dean.

12:25:04 20 I'm done with my piece for right now. And so,  
21 Ms. Dean is going to talk about cutting teeth.

22 THE COURT: Okay. That's what I was going to ask. I  
23 got slides -- teeth slides.

24 MS. PARTRIDGE: I thought we had made an agreement,  
12:25:15 25 but that's fine. That's why it's broken up a little bit odd,

1 your Honor; but I appreciate your indulgence.

2 I just told her to speak up. It's just hard when  
3 you start, but she's doing a great job.

12:25:36

4 THE COURT: I don't know when it's supposed to get  
5 easy, do you?

6 MS. PARTRIDGE: Exactly.

7 THE COURT: Because I missed it, apparently.

12:25:52

8 MS. PARTRIDGE: I agree, your Honor. What I meant was  
9 I speak a lot louder now, and people make fun of me for how loud  
10 I speak. But I think it's because I got yelled at all the --  
11 all the time when I was young for speaking too high and speaking  
12 too fast and speaking too soft. So, I try my hardest now to  
13 speak slower and to speak very loudly.

12:26:05

14 THE COURT: Well, you're not nearly as old as I am and  
15 neither are they. But I'm a child immediately post-depression.  
16 And so, by the time I practiced law, courtrooms were -- had  
17 cooling, and they had microphones and florescent lights and  
18 things like that.

12:26:42

19 And in my early years, it was real easy to tell  
20 when you're in a -- your opponent was pre-air conditioning  
21 because they could project to this whole room without missing a  
22 beat, and I never got good at that. So, I like --

23 MS. PARTRIDGE: I can't quite do that, but I'm just --  
24 I just speak up.

12:27:04

25 THE COURT: Maybe some day I'm going to give her her

1 own personal microphone, and it won't be plugged into anything,  
2 but it will keep her busy.

3 All right. Tell me about cutting teeth.

4 MS. DEAN: All right, your Honor. If you turn to  
12:27:22 5 Slide 48, you'll see both parties' proposed constructions of  
6 cutting teeth; and Stabil Drill's proposed construction is  
7 carbide or diamond inserts with a flat cutting surface.

8 If you turn now to Slide 49, what we have here is  
9 a description of Figure 3. It's from Extreme's patent at Column  
12:27:48 10 3, lines 37 to 42; and you see a description of the teeth. So,  
11 the critical part here is with each tooth preferably having a  
12 circular cutting surface, generally, facing the path of movement  
13 of the tooth relative to the well bore as the reamer rotates and  
14 the drill string advances down hole.

12:28:10 15 And you can see -- if you turn to Slide 49, we'll  
16 take a look at Figure 3. It's a little bit bigger here on Slide  
17 50. And you can see the flat faces of the cutting teeth, the  
18 two dimensional surfaces of the teeth facing the path of  
19 movement.

12:28:32 20 So, you see in the top right-hand corner, the PM  
21 leading to that arrow, the reamer is rotating -- the path of  
22 movement is rotating from the left side to the right side; and  
23 the cutting surfaces as disclosed in the patent of each of the  
24 top and bottom reamers preferably comprise a number of carbide  
12:29:01 25 or diamond teeth, 108, which you can see indicated in Figure 3,

1 108.

2 In each of Blade 1, Blade 2, Blade 3, and Blade  
3 4, you see the little figure label 108 for each of those; and  
4 those are the carbide or diamond teeth described in Extreme's  
12:29:22 5 patent; and each of those carbide or diamond teeth preferably  
6 has a circular cutting surface, generally, facing the path of  
7 movement.

8 And you can see in each -- each set that makes  
9 up -- for example, the first set that's highlighted in yellow  
12:29:34 10 makes up Blade 1; and you can see they're flat surfaces facing  
11 the path of movement. And the same for Blade 2 in blue, Blade 3  
12 in green, and Blade 4 in red.

13 If we turn to Slide 51, you see that, you know,  
14 "circular" means having a form of a circle; and a "circle" is a  
12:30:02 15 round two-dimensional shape. It's a flat-faced shape. When you  
16 say -- and Extreme's patents disclose a circular flat cutting  
17 surface.

18 And Extreme, if you --

19 THE COURT: But these circles are circles of  
12:30:17 20 something, right?

21 MS. DEAN: Yes.

22 THE COURT: Because, otherwise, a circle is two  
23 dimensional. And my geometry has shuffled away, but I don't  
24 know what the next --

12:30:37 25 MS. PARTRIDGE: Well, your Honor, it's certainly not a



1 sphere, it's a two-dimensional --

2 THE COURT: It's not a what?

3 MS. PARTRIDGE: A sphere or a dome. It's a  
4 two-dimensional cutting surface.

12:30:48 5 THE COURT: Yes.

6 MS. DEAN: And so, the disclosure of a circular  
7 cutting surface is indicating that that is a flat cutting  
8 surface. As your Honor has pointed out, a circular is -- a  
9 circle, excuse me, is two dimensional. And so, you have this  
10 circular cutting surface which is a flat-faced surface -- and I  
11 keep going this way; but in the drawing, it's going this way --  
12 facing that path of movement.

13 And that geometry is how the tool shears away the  
14 formation as it rotates is you have those flat circular cutting  
15 surfaces facing the path of movement get pushed into the side of  
16 the well bore and they shear away the formation, and that is how  
17 the disclosed reamer functions.

18 And Extreme admits in its brief at page 30 that  
19 the patented reamer -- and they discussed it in their  
20 presentation, as well -- has flat-faced teeth.

21 MS. PARTRIDGE: They also argue that the teeth are  
22 domes, as well; but they say that some of the teeth are  
23 flat-faced. I just want to not misrepresent what Extreme put in  
24 its brief, but they did not -- but they admitted that some of  
25 the cutting teeth, at least, are flat-faced teeth; and we submit

12:32:01

1 they all have to be flat-faced teeth or two-dimensional  
2 circular.

3 MS. DEAN: So, if we turn now to Slide 52, you will  
4 see Figure 10 which we've discussed; and you see, as

12:32:20 5 Ms. Partridge pointed out in her presentation, the circular flat  
6 cutting surfaces of each of these cutting teeth has been  
7 highlighted. And it's most -- and it's easiest to see on Blade  
8 4 which is in red and Blade 3 which is in the green. And what  
9 has been highlighted is that flat cutting surface.

12:32:40 10 As Ms. Partridge pointed out, there's also, which  
11 has not been highlighted, the domes. There are domes shown --  
12 for example, on Blade 3, there's a dome that isn't one of the  
13 cutting teeth. It does not have a flat cutting surface. And  
14 Extreme's argument is that those domes are also cutting teeth.

12:33:20 15 THE COURT: Leave her alone.

16 MS. PARTRIDGE: Yes?

17 THE COURT: Leave her alone.

18 MS. PARTRIDGE: Yes, your Honor.

19 MS. DEAN: If we move on to Slide 53, what you're  
12:33:26 20 going to see here is Figure 13 from Extreme's patents, which we  
21 looked at previously; but here, what we're looking at is the  
22 dark line that -- that goes through the set of cutting teeth.  
23 And the line goes through those flat-faced teeth.

24 There's not -- those dark lines in Blade 2 and  
12:33:42 25 Blade 3. And you see -- you see the line. Blade 2 goes through

1 all of the cutting teeth, and Blade 3 goes through all those  
2 flat-faced cutting teeth. And there's a little dome there near  
3 the bottom, and that dome is not in that line.

4 And so, the set of cutting teeth that's  
12:34:01 5 identified here in Figure 13 is those flat-faced cutting teeth  
6 that make up Blade 3, 310C.

7 Next, if we turn to Slide 54, you'll see another  
8 example of the flat-faced cutting teeth; and here, the reamer is  
9 rotating from -- you know, you start with the first one in  
12:34:28 10 Figure 14A; and you'll see as you go to 14B and 14C and 14D the  
11 reamer is rotating from the right-hand side of the page to the  
12 left-hand side of the page or out of the page and then back into  
13 the page as it progresses.

14 And you see in turn each blade coming into focus;  
12:34:49 15 and as it comes into focus in the side-cut position, you see  
16 that flat face. And then, the reason that the highlighting kind  
17 of disappears as it turns is because it's facing that path of  
18 movement.

19 So, when it's -- when it's here, you're not going  
12:35:02 20 to see that flat face, you're going to see it as it -- as it  
21 comes into the side-cut position of these figures. And then, it  
22 sort of disappears as it turns because what has been highlighted  
23 is that flat cutting surface.

24 And then, if we turn to Figure 55 -- not Figure  
12:35:27 25 55, excuse me, Slide 55, we'll look, again, at Figures 12A

1 through 12D. And this is yet another example of the teeth as  
2 flat cutting surfaces where here they're coming -- they're  
3 coming towards you.

4                   So, you see, you know, first, Blade 1 and then  
12:35:41 5 Blade 2 and then Blade 3 and then Blade 4 with the enumerated  
6 cutting teeth; and that's the flat face shearing the formation  
7 as it moves towards us on the page.

8                   Now, if we turn to Slide 56, we're addressing --  
9 we're going to start to address -- address Extreme's arguments  
12:36:07 10 and go back to what Ms. Partridge was saying, that the issue  
11 here that we need to decide today is the meaning of the term  
12 "cutting teeth." It's not whether domes are cutting teeth or  
13 whether any other structure is cutting teeth, it's the meaning  
14 of the term "cutting teeth" in the context of Extreme's patents.

12:36:28 15                   And as shown here on Slide 56, the disclosure in  
16 Extreme's patents says that the cutting surfaces of each of the  
17 top and bottom reamers preferably comprise a number of carbide  
18 or diamond teeth, 108, which you can see on the left in Figure  
19 3, with each tooth preferably having a circular cutting surface,  
12:36:52 20 generally, facing the path of movement of the tooth relative to  
21 the well bore as the reamer rotates and the drill string  
22 advances down hole.

23                   On 57, Slide 57 -- we discussed this a little  
24 bit; but this is, again, just showing that the rounded domes are  
12:37:15 25 not included in the set of -- in the set of cutting teeth. What

1 makes up the cutting blades is the set of cutting teeth.

2 Now, if we move to Slide 58, we're going to start  
3 to look at in practice how Extreme --

4 THE COURT: Did you say 58?

12:37:37 5 MS. DEAN: Yes. Slide 58.

6 Slide 58 is showing that drilling ream which is  
7 the commercial embodiment of Extreme's patent, and this is a  
8 technical drawing of Extreme's drilling ream, and it has a parts  
9 list on it. And what this is showing is that the -- the cutting  
10 teeth -- the flat-faced cutting teeth are highlighted in green;  
11 and those are identified in the parts list as cutters or cutters  
12 half lengths.

13 THE COURT REPORTER: I'm sorry, cutters what?

14 MS. DEAN: Half length.

12:38:15 15 And those are distinguished from -- where it says  
16 in the parts list Dome R.5; and you'll see, if you look, the  
17 cutting teeth -- the flat-faced cutting teeth are highlighted in  
18 green that's native to this drawing -- and the domes, the  
19 rounded domes that protect the casing and serve a completely  
12:38:36 20 different -- are in black.

21 And you can see that these teeth are  
22 longitudinally aligned, that each -- this set of cutting teeth  
23 -- each set of cutting teeth that makes up a blade is  
24 longitudinally aligned along the reamer. So, the teeth go the  
12:38:52 25 same direction as the reamer extends.

1 And then, if you turn to Slide 59, what you'll  
2 see here is another Extreme document where it's distinguishing  
3 between the flat-faced cutting teeth and the domes and  
4 identifying the domes protect the casing. They do not cut, they  
5 protect.

12:39:16

6 Again, if you turn to Slide 60, it's another  
7 Extreme document regarding the commercial embodiment of their  
8 patent, the Drill-N-Ream; and it identifies that the diamond  
9 domes protect the casing and the PDC cutting structure, the PDC  
10 cutting structure being those flat-faced cutting teeth aligned  
11 longitudinally along the length of the reamer as is disclosed in  
12 Extreme's patent.

12:39:38

13 MS. PARTRIDGE: We're changing one more time, your  
14 Honor. I'm on Slide 62. And I'm just going to very briefly  
15 address Extreme's -- I call them the cutting arguments, all  
16 these arguments they're using to show domes cut which, first --

12:40:25

17 THE COURT: What? Say what?

18 MS. PARTRIDGE: I'm sorry, your Honor. I'm going to  
19 discuss Extreme's arguments at a very high level regarding  
20 cutting, and the first issue -- the highest most issue is that  
21 their intrinsic evidence -- I mean, I'm sorry. Let me start  
22 over.

12:40:43

23 The highest level is that what we're looking at  
24 today is claim construction. We're not looking at what cuts or  
25 what doesn't cut. What we're looking at is what the structure

12:41:00

1 -- what structure has been disclosed in Extreme's patents for  
2 cutting teeth and cutting blades.

3           And just on Slide 62 -- I alluded to this  
4 earlier, but here's Federal Circuit case law: Apparatus claims  
12:41:22 5 cover what a device is, not what a device does. Again, Extreme  
6 has admitted that there are no means-plus-function claims here,  
7 and a means-plus-function limitation recites a function to be  
8 performed rather than definite structure or materials. But  
9 that's not what we're doing here, your Honor. We're looking at  
12:41:46 10 the structure.

11           And so, at a very high level, the cutting  
12 arguments, again -- the experiment -- first, it's extrinsic  
13 evidence. It wasn't done at down hole conditions, and it's not  
14 relevant to claim construction here today.

12:42:02 15           The hammer, the knife, same. I mean, again, a  
16 drill bit doesn't cut like a knife cuts; and it doesn't cut like  
17 a hammer hammers. I guess hammers hammer. But it's just not  
18 relevant here for claim construction, your Honor. And I would  
19 submit that it's improper extrinsic evidence because it  
12:42:23 20 contradicts the specification, the intrinsic record, the  
21 specification prosecution history of Extreme's patents.

22           The testimony of Extreme's counsel and Stabil  
23 Drill's witnesses, again, extrinsic evidence; and I addressed  
24 earlier that I believe that the way they were characterized is  
12:42:46 25 not correct. If you want me to go further into that, I can; but

1 again, it doesn't matter what cuts -- that the domes cut. What  
2 matters here today is what's the structure.

3 Other drill bits. I think -- the video, I think,  
4 demonstrated that, especially, these roller-cone bits, they're  
12:43:05 5 not relevant to the reamer and the reamer operation. And again,  
6 they're extrinsic evidence, your Honor. So, they're not used to  
7 interpret the claims when the specification is clear.

8 And that's the same for -- for the patents they  
9 were -- they were showing, for the patents covering the reamers,  
12:43:22 10 the patents covering the stabilizers, and the patents covering  
11 the roller-cone bits. Not relevant for claim construction here  
12 today because they are extrinsic evidence; and then, there are  
13 other reasons, that many of them just don't function the way the  
14 reamers here function. So, they're not relevant.

12:43:42 15 THE COURT: All right, thank you.

16 MR. RALEY: Your Honor, may I --

17 THE COURT: That's enough.

18 MR. RALEY: Okay.

19 THE COURT: Everybody's gotten their opportunity. And  
12:43:55 20 some people let other people do their part.

21 All right. We'll get back to you as soon as we  
22 can. Thank you very much.

23 MS. PARTRIDGE: Thank you, your Honor.

24 MR. BOWICK: Your Honor, one question before we leave:  
12:44:15 25 Would you like us to file our slide presentations on Pacer or



1 submit them electronically to the Court?

2 THE LAW CLERK: Do they include anything that is not  
3 already in the record?

4 MR. RALEY: Some --

12:44:31 5 MR. BOWICK: Ours do not.

6 MR. RALEY: Well, the definitions that you edited in  
7 that one slide.

8 MR. BOWICK: No. That's in our reply brief.

9 MR. RALEY: It is?

12:44:38 10 MR. BOWICK: Yeah.

11 It's all in the record. I just --

12 THE LAW CLERK: If it's already in the record, then  
13 it just becomes a demonstrative.

14 MR. BOWICK: Correct. I just wasn't sure if you want  
12:44:49 15 -- I mean, if you want it, we can give it to you.

16 THE LAW CLERK: As long as it's --

17 MR. RALEY: It lays it out pretty concisely; whereas,  
18 the briefing is kind of long.

19 THE COURT: We'll just hold up that notebook and go to  
12:45:02 20 work.

21 MR. BOWICK: That's fine. Just in case you wanted it.  
22 I mean, you're welcome to it.

23 THE COURT: My experience these later years is there's  
24 been a whole lot of dash-cams and --

12:45:03 25 Don't take this down.

1 (Discussion off the record.)

2 (Proceedings concluded at 12:46 p.m.)

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C E R T I F I C A T E

7

8 I certify that the foregoing is a correct transcript

9 from the record of proceedings in the above-entitled matter, to  
10 the best of my ability.

11

12 By: /s/ Gayle L. Dye

05-26-2022

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Gayle L. Dye, CSR, RDR, CRR

Date

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'	12 [8] - 15:22, 15:23, 20:12, 52:15, 58:10, 72:23, 77:5, 80:9	59:14, 59:19	37:14, 55:20, 88:10
'205 [3] - 46:22, 47:1, 77:5	122 [9] - 58:25, 59:2, 59:14, 59:18, 59:19, 59:21, 59:23, 59:24, 61:2	23 [5] - 7:20, 23:7, 31:3, 31:7, 46:22	39 [4] - 38:18, 56:3, 89:2
'cutting [2] - 7:22, 8:3	1221 [1] - 1:20	24 [5] - 31:16, 31:20, 61:8, 80:8	4
/	124 [5] - 58:11, 58:19, 58:23, 59:14, 59:18	240 [7] - 12:7, 12:10, 12:19, 13:8, 27:20, 42:18, 53:9	4 [30] - 1:7, 3:2, 41:4, 47:3, 47:12, 49:15, 49:17, 52:19, 77:25, 80:14, 82:8, 82:12, 82:20, 82:23, 83:1, 83:11, 83:12, 84:3, 84:15, 85:6, 85:10, 85:17, 85:19, 86:14, 96:3, 96:12, 98:8, 100:5
/s/Gayle [1] - 106:12	128 [1] - 59:22	25 [3] - 32:4, 80:19	40 [7] - 13:9, 13:10, 38:21, 38:24, 61:10, 73:10
0	12:46 [1] - 106:2	26 [6] - 32:20, 46:23, 61:6, 61:8, 61:10, 81:19	41 [3] - 39:9, 40:16, 90:21
05-26-2022 [1] - 106:12	12A [3] - 79:3, 79:8, 99:25	27 [3] - 33:3, 33:4, 82:3	42 [5] - 41:1, 91:13, 91:14, 91:19, 95:10
1	12B [1] - 79:3	28 [4] - 33:16, 59:1, 59:22, 82:18	43 [3] - 41:16, 92:8
1 [39] - 41:4, 47:3, 47:21, 76:17, 77:24, 78:23, 78:24, 79:9, 79:21, 79:22, 80:2, 80:10, 80:11, 81:5, 82:5, 82:6, 82:7, 82:12, 82:19, 82:24, 83:1, 83:10, 84:9, 84:10, 84:12, 84:13, 84:23, 85:5, 85:10, 85:16, 85:18, 85:23, 86:10, 86:12, 86:13, 96:2, 96:10, 100:4	12C [1] - 79:4	2800 [1] - 1:20	44 [3] - 42:20, 92:13
1/2 [1] - 86:8	12D [3] - 79:4, 79:8, 100:1	29 [4] - 34:7, 52:18, 83:7	45 [3] - 28:1, 42:25, 92:25
1/4 [1] - 86:8	13 [9] - 20:25, 51:15, 52:15, 83:16, 83:18, 84:6, 84:7, 98:20, 99:5	3	46 [1] - 45:3
1/8 [1] - 86:14	130 [1] - 57:16	3 [44] - 8:22, 47:1, 47:3, 49:12, 52:18, 58:19, 59:16, 60:10, 61:17, 69:17, 69:18, 76:19, 76:20, 77:24, 80:13, 82:12, 82:20, 82:23, 83:1, 83:10, 83:11, 84:14, 84:17, 85:5, 85:10, 85:17, 85:19, 85:20, 86:13, 93:1, 95:9, 95:10, 95:16, 95:25, 96:2, 96:11, 98:8, 98:12, 98:25, 99:1, 99:6, 100:5, 100:19	47 [1] - 46:9
10 [20] - 15:22, 15:25, 18:19, 18:20, 19:8, 49:8, 49:11, 50:5, 50:15, 52:15, 55:20, 56:3, 72:9, 76:9, 77:6, 77:12, 77:18, 78:14, 98:4	14 [2] - 22:2, 68:7	3/4 [1] - 86:11	48 [2] - 46:16, 95:5
101 [1] - 49:20	14A [1] - 99:10	30 [9] - 27:22, 34:7, 44:19, 56:2, 79:8, 79:9, 80:4, 83:16, 97:18	49 [3] - 47:10, 95:8, 95:15
102 [9] - 91:25, 92:11, 92:12, 92:23, 92:24, 92:25, 93:1, 93:2	14B [1] - 99:10	30-minute [1] - 44:14	5 [15] - 11:7, 46:22, 47:15, 57:23, 70:8, 77:5, 80:19, 80:20, 81:17, 83:12, 86:8, 86:11, 92:16, 92:19
104 [10] - 80:21, 81:22, 92:2, 92:5, 92:11, 92:12, 92:14, 92:19, 92:23, 93:2	14C [1] - 99:10	300 [3] - 1:15, 83:18, 84:8	50 [3] - 14:20, 47:25, 95:17
108 [6] - 48:12, 49:1, 95:25, 96:1, 96:3, 100:18	14D [2] - 85:9, 99:10	31 [3] - 34:13, 55:17, 84:8	51 [4] - 48:9, 49:7, 61:21, 96:13
10:30 [1] - 44:22	15 [1] - 22:24	310 [2] - 77:7, 77:20	515 [1] - 2:2
10:56 [1] - 44:23	16 [6] - 15:23, 15:25, 23:18, 23:19, 72:22, 75:12	310A [8] - 76:16, 77:8, 77:21, 77:23, 78:22, 78:23, 79:10, 84:15	52 [2] - 50:2, 98:3
11 [8] - 20:8, 58:10, 74:6, 74:7, 74:8, 79:12, 80:9, 80:10	17 [3] - 24:5, 52:17, 75:16	310B [6] - 76:17, 77:8, 77:21, 77:24, 79:10, 84:14	53 [2] - 50:5, 98:19
110 [4] - 57:8, 81:24, 92:17	18 [8] - 24:17, 37:1, 38:10, 40:4, 76:8, 78:14, 78:19	310C [8] - 49:12, 52:10, 76:19, 77:8, 77:21, 77:24, 79:10, 99:6	54 [2] - 51:14, 99:7
110A [4] - 81:24, 82:1, 92:18, 92:20	180 [2] - 18:24, 19:20	310D [5] - 77:1, 77:8, 77:21, 77:24, 79:10	55 [4] - 52:13, 99:24, 99:25
110B [4] - 81:24, 82:1, 92:18, 92:20	1800 [1] - 1:15	31A [1] - 84:9	56 [3] - 53:16, 100:8, 100:15
110C [4] - 81:25, 82:1, 92:18, 92:20	19 [1] - 77:3	32 [4] - 34:24, 36:2, 55:20, 84:18	57 [3] - 53:25, 100:23
110D [4] - 81:25, 82:1, 92:18, 92:20	1930s [1] - 24:9	33 [2] - 35:3, 85:8	58 [5] - 54:13, 101:2, 101:4, 101:5, 101:6
112 [1] - 57:8	1a [2] - 15:20, 16:12	34 [2] - 35:14, 85:13	59 [1] - 102:1
114 [2] - 48:15, 57:8	2	35 [6] - 35:22, 35:25, 36:12, 80:3, 80:4, 86:21	6
116 [1] - 57:8	2 [28] - 7:18, 47:3, 57:13, 59:16, 60:5, 61:20, 76:18, 77:24, 80:12, 82:12, 82:19, 82:24, 83:1, 83:10, 83:11, 84:13, 84:14, 85:5, 85:10, 85:16, 85:19, 86:11, 96:2, 96:11, 98:24, 98:25, 100:5	35-degree [2] - 79:24, 79:25	6 [7] - 12:4, 47:20, 73:23, 74:2, 74:3, 86:11, 86:14
118 [1] - 57:8	20 [3] - 26:12, 64:19, 77:16	36 [5] - 35:24, 36:21, 56:2, 87:8	60 [11] - 12:7, 12:10, 12:19, 27:19, 27:20, 27:22, 42:18, 53:9, 55:7, 102:6
	2005 [1] - 68:7	360 [1] - 19:20	61 [1] - 57:3
	2012 [1] - 55:17	37 [2] - 36:22, 95:10	62 [5] - 57:22, 58:17, 58:20, 102:14, 103:3
	2013 [1] - 57:23	38 [6] - 37:6, 37:7, 37:8,	63 [2] - 58:15, 58:22
	2014 [1] - 57:4		64 [1] - 59:12
	2018 [1] - 70:17		65 [2] - 60:19, 60:21
	2019 [2] - 22:3, 35:15		66 [1] - 61:16
	2020 [4] - 7:20, 23:7, 23:19, 31:4		
	2022 [2] - 1:7, 3:2		
	21 [4] - 30:7, 78:9, 78:16		
	22 [10] - 22:3, 30:23, 55:19, 57:4, 58:23, 60:24, 61:2, 61:3, 61:4, 79:7		
	224 [5] - 58:11, 58:19, 58:23,		

<p style="text-align: center;"><b>7</b></p> <p><b>7</b><sup>[19]</sup> - 13:13, 14:2, 15:9, 70:25, 91:3, 91:5, 91:6, 91:7, 91:9, 91:10, 91:12, 91:17, 91:19, 92:10, 92:15, 92:20, 92:21, 92:22</p> <p><b>713.250.5582</b><sup>[1]</sup> - 2:3</p> <p><b>713.429.8045</b><sup>[1]</sup> - 1:16</p> <p><b>713.429.8050</b><sup>[1]</sup> - 1:16</p> <p><b>713.652.0109</b><sup>[1]</sup> - 1:22</p> <p><b>713.654.5300</b><sup>[1]</sup> - 1:22</p> <p><b>713.654.5357</b><sup>[1]</sup> - 1:21</p> <p><b>77002</b><sup>[1]</sup> - 2:3</p> <p><b>77010</b><sup>[1]</sup> - 1:21</p> <p><b>77057</b><sup>[1]</sup> - 1:15</p>	<p><b>additional</b><sup>[1]</sup> - 86:25</p> <p><b>additionally</b><sup>[2]</sup> - 14:15, 56:11</p> <p><b>address</b><sup>[7]</sup> - 21:19, 39:21, 45:6, 63:9, 100:9, 102:15</p> <p><b>addressed</b><sup>[3]</sup> - 45:14, 45:17, 103:23</p> <p><b>addressing</b><sup>[2]</sup> - 88:2, 100:8</p> <p><b>adjacent</b><sup>[1]</sup> - 41:19</p> <p><b>adjective</b><sup>[5]</sup> - 20:14, 30:6, 42:4, 42:6, 42:10</p> <p><b>admission</b><sup>[4]</sup> - 36:19, 66:6, 67:9, 67:16</p> <p><b>admissions</b><sup>[2]</sup> - 23:15, 23:16</p> <p><b>admit</b><sup>[1]</sup> - 38:11</p> <p><b>admits</b><sup>[7]</sup> - 29:25, 32:19, 43:22, 43:23, 44:1, 44:4, 97:18</p> <p><b>admitted</b><sup>[7]</sup> - 27:17, 27:24, 29:5, 35:10, 36:24, 97:24, 103:6</p> <p><b>advances</b><sup>[2]</sup> - 95:14, 100:22</p> <p><b>advertising</b><sup>[3]</sup> - 51:1, 51:4, 53:4</p> <p><b>AERO</b><sup>[1]</sup> - 70:3</p> <p><b>affect</b><sup>[1]</sup> - 67:12</p> <p><b>afield</b><sup>[1]</sup> - 31:12</p> <p><b>agent</b><sup>[1]</sup> - 54:17</p> <p><b>aggressive</b><sup>[1]</sup> - 34:21</p> <p><b>aghast</b><sup>[1]</sup> - 3:20</p> <p><b>ago</b><sup>[2]</sup> - 22:3, 39:20</p> <p><b>agree</b><sup>[3]</sup> - 23:25, 32:22, 94:8</p> <p><b>agreed</b><sup>[5]</sup> - 6:5, 7:15, 8:5, 28:2, 59:14</p> <p><b>agreement</b><sup>[3]</sup> - 4:17, 6:10, 93:24</p> <p><b>aid</b><sup>[1]</sup> - 21:18</p> <p><b>AIDED</b><sup>[1]</sup> - 1:25</p> <p><b>air</b><sup>[1]</sup> - 94:20</p> <p><b>aligned</b><sup>[15]</sup> - 76:2, 76:5, 79:23, 83:22, 85:6, 86:18, 86:20, 87:4, 89:10, 89:23, 90:17, 93:16, 101:22, 101:24, 102:10</p> <p><b>alignment</b><sup>[6]</sup> - 66:2, 71:7, 77:14, 79:19, 79:21, 87:16</p> <p><b>allowance</b><sup>[1]</sup> - 55:9</p> <p><b>allowed</b><sup>[1]</sup> - 90:19</p> <p><b>alluded</b><sup>[1]</sup> - 103:3</p> <p><b>almost</b><sup>[5]</sup> - 11:23, 15:15, 22:3, 45:21, 58:5</p> <p><b>alone</b><sup>[3]</sup> - 69:4, 98:15, 98:17</p> <p><b>ambiguity</b><sup>[1]</sup> - 69:4</p> <p><b>ambiguous</b><sup>[1]</sup> - 21:8</p> <p><b>amendments</b><sup>[1]</sup> - 90:25</p> <p><b>amends</b><sup>[1]</sup> - 90:22</p> <p><b>amount</b><sup>[1]</sup> - 51:19</p> <p><b>analogy</b><sup>[2]</sup> - 26:5, 26:17</p>	<p><b>analysis</b><sup>[2]</sup> - 68:15, 69:3</p> <p><b>angle</b><sup>[5]</sup> - 27:15, 34:3, 39:24, 40:2, 40:19</p> <p><b>angles</b><sup>[4]</sup> - 27:3, 27:4, 40:14, 82:22</p> <p><b>answer</b><sup>[2]</sup> - 48:19, 62:14</p> <p><b>apologize</b><sup>[3]</sup> - 8:11, 30:15, 37:7</p> <p><b>apparatus</b><sup>[5]</sup> - 41:4, 64:5, 64:12, 64:13, 103:4</p> <p><b>APPEARANCES</b><sup>[1]</sup> - 1:12</p> <p><b>application</b><sup>[3]</sup> - 30:3, 35:21, 75:6</p> <p><b>applications</b><sup>[1]</sup> - 54:14</p> <p><b>applied</b><sup>[5]</sup> - 20:14, 25:9, 26:8, 35:5, 55:5</p> <p><b>apply</b><sup>[4]</sup> - 21:21, 34:7, 54:10, 93:10</p> <p><b>applying</b><sup>[1]</sup> - 46:1</p> <p><b>appreciate</b><sup>[1]</sup> - 94:1</p> <p><b>approach</b><sup>[2]</sup> - 7:2, 43:18</p> <p><b>appropriate</b><sup>[1]</sup> - 29:13</p> <p><b>April</b><sup>[1]</sup> - 57:4</p> <p><b>area</b><sup>[5]</sup> - 72:2, 72:3, 81:6, 81:15, 93:3</p> <p><b>areas</b><sup>[1]</sup> - 14:24</p> <p><b>argue</b><sup>[7]</sup> - 3:18, 3:22, 4:9, 9:5, 87:9, 89:3, 97:21</p> <p><b>argued</b><sup>[3]</sup> - 11:9, 21:24, 22:13</p> <p><b>argues</b><sup>[2]</sup> - 56:11, 89:1</p> <p><b>arguing</b><sup>[5]</sup> - 8:6, 22:4, 43:16, 77:11, 88:18</p> <p><b>argument</b><sup>[14]</sup> - 4:24, 19:14, 22:19, 53:16, 61:25, 63:8, 63:17, 65:16, 68:4, 75:20, 86:23, 88:3, 93:6, 98:14</p> <p><b>arguments</b><sup>[12]</sup> - 23:23, 26:13, 44:1, 44:7, 62:10, 64:1, 88:5, 100:9, 102:15, 102:16, 102:19, 103:12</p> <p><b>arm</b><sup>[1]</sup> - 34:17</p> <p><b>arranged</b><sup>[6]</sup> - 31:11, 40:16, 40:17, 77:8, 83:4, 83:5</p> <p><b>arrangement</b><sup>[5]</sup> - 20:20, 20:21, 33:23, 82:19, 87:12</p> <p><b>array</b><sup>[4]</sup> - 41:4, 56:1, 57:16, 90:8</p> <p><b>arrow</b><sup>[2]</sup> - 49:13, 95:21</p> <p><b>arrows</b><sup>[2]</sup> - 52:21</p> <p><b>art</b><sup>[16]</sup> - 8:2, 21:20, 23:15, 23:21, 24:3, 30:4, 30:25, 54:8, 55:10, 56:7, 56:8, 56:14, 56:20, 58:8, 90:13</p> <p><b>asserted</b><sup>[2]</sup> - 20:10, 20:11</p> <p><b>asserting</b><sup>[2]</sup> - 35:8, 37:21</p> <p><b>asserts</b><sup>[2]</sup> - 31:5, 33:1</p> <p><b>assistant</b><sup>[1]</sup> - 3:25</p> <p><b>associate</b><sup>[2]</sup> - 3:17, 3:24</p> <p><b>assume</b><sup>[1]</sup> - 49:2</p>	<p><b>attack</b><sup>[1]</sup> - 67:24</p> <p><b>attempt</b><sup>[1]</sup> - 53:20</p> <p><b>attorney</b><sup>[1]</sup> - 54:17</p> <p><b>August</b><sup>[2]</sup> - 22:3, 55:17</p> <p><b>Augusta</b><sup>[1]</sup> - 1:15</p> <p><b>avoid</b><sup>[1]</sup> - 40:1</p> <p><b>aware</b><sup>[5]</sup> - 13:1, 13:15, 37:3, 45:9, 54:15</p> <p><b>axis</b><sup>[4]</sup> - 69:24, 70:5, 70:13, 83:14</p>
<p style="text-align: center;"><b>8</b></p> <p><b>8</b><sup>[11]</sup> - 14:22, 15:20, 35:15, 55:20, 56:2, 78:23, 80:11, 82:5, 82:10, 82:11, 82:18</p> <p><b>8004</b><sup>[1]</sup> - 2:2</p>			
<p style="text-align: center;"><b>9</b></p>			
<p><b>9</b><sup>[10]</sup> - 16:13, 55:20, 56:2, 58:10, 71:21, 77:5, 82:5, 82:16, 82:18, 83:8</p> <p><b>9:24</b><sup>[1]</sup> - 1:8</p>			
<p style="text-align: center;"><b>A</b></p> <p><b>a.m</b><sup>[3]</sup> - 1:8, 44:22, 44:23</p> <p><b>Abbott</b><sup>[1]</sup> - 89:13</p> <p><b>ability</b><sup>[1]</sup> - 106:10</p> <p><b>able</b><sup>[5]</sup> - 30:8, 42:5, 43:2, 72:25, 84:24</p> <p><b>above-entitled</b><sup>[1]</sup> - 106:9</p> <p><b>absence</b><sup>[1]</sup> - 41:16</p> <p><b>absolutely</b><sup>[3]</sup> - 25:25, 27:11, 60:15</p> <p><b>absorbs</b><sup>[1]</sup> - 14:13</p> <p><b>accomplishments</b><sup>[1]</sup> - 3:5</p> <p><b>according</b><sup>[7]</sup> - 11:22, 12:2, 20:23, 50:8, 50:10, 50:19, 68:22</p> <p><b>accused</b><sup>[1]</sup> - 39:23</p> <p><b>achieve</b><sup>[1]</sup> - 34:9</p> <p><b>achievement</b><sup>[1]</sup> - 19:4</p> <p><b>act</b><sup>[3]</sup> - 19:7, 51:11, 54:2</p> <p><b>Action</b><sup>[1]</sup> - 1:5</p> <p><b>action</b><sup>[3]</sup> - 19:5, 59:7, 59:8</p> <p><b>actual</b><sup>[2]</sup> - 43:15, 59:6</p> <p><b>add</b><sup>[7]</sup> - 33:5, 37:9, 38:6, 38:20, 38:25, 46:19, 90:23</p> <p><b>added</b><sup>[8]</sup> - 52:14, 59:5, 76:16, 86:21, 86:22, 90:15, 91:4</p> <p><b>addition</b><sup>[1]</sup> - 56:8</p>			<p style="text-align: center;"><b>B</b></p> <p><b>B1</b><sup>[1]</sup> - 58:4</p> <p><b>B3</b><sup>[2]</sup> - 58:25, 59:25</p> <p><b>B7</b><sup>[3]</sup> - 58:5, 58:25, 59:25</p> <p><b>back-reaming</b><sup>[1]</sup> - 61:9</p> <p><b>backed</b><sup>[1]</sup> - 20:22</p> <p><b>background</b><sup>[1]</sup> - 55:16</p> <p><b>bad</b><sup>[1]</sup> - 4:12</p> <p><b>Baker</b><sup>[1]</sup> - 69:20</p> <p><b>balance</b><sup>[1]</sup> - 23:4</p> <p><b>ball</b><sup>[3]</sup> - 26:13, 43:1, 51:21</p> <p><b>barely</b><sup>[1]</sup> - 63:5</p> <p><b>base</b><sup>[2]</sup> - 67:23, 67:24</p> <p><b>based</b><sup>[4]</sup> - 23:21, 65:23, 66:20, 90:10</p> <p><b>basis</b><sup>[1]</sup> - 22:21</p> <p><b>bearing</b><sup>[2]</sup> - 51:11, 53:8</p> <p><b>beat</b><sup>[1]</sup> - 94:22</p> <p><b>Beaton</b><sup>[9]</sup> - 57:23, 57:24, 58:10, 58:21, 58:22, 59:21, 59:22, 60:25, 61:24</p> <p><b>becomes</b><sup>[1]</sup> - 105:13</p> <p><b>BEFORE</b><sup>[1]</sup> - 1:10</p> <p><b>beginning</b><sup>[3]</sup> - 11:9, 22:21, 23:12</p> <p><b>behind</b><sup>[7]</sup> - 10:8, 14:19, 14:24, 17:8, 80:25, 84:17, 86:13</p> <p><b>belabor</b><sup>[1]</sup> - 24:4</p> <p><b>below</b><sup>[2]</sup> - 16:8, 82:11</p> <p><b>best</b><sup>[2]</sup> - 68:16, 106:10</p> <p><b>better</b><sup>[3]</sup> - 5:2, 19:23, 75:7</p> <p><b>between</b><sup>[15]</sup> - 12:19, 15:22, 15:24, 37:2, 53:9, 54:16, 57:25, 61:12, 64:18, 73:11, 79:24, 80:4, 81:5, 87:17, 102:3</p> <p><b>beyond</b><sup>[10]</sup> - 12:24, 29:4, 34:22, 46:8, 48:4, 54:9, 59:19, 60:12, 88:17, 89:14</p> <p><b>big</b><sup>[5]</sup> - 4:10, 15:16, 15:17, 23:13, 66:6</p> <p><b>bigger</b><sup>[4]</sup> - 10:3, 13:6, 16:24, 95:16</p> <p><b>bit</b><sup>[51]</sup> - 4:15, 10:4, 10:8, 10:9, 10:12, 10:14, 13:17, 13:21, 13:23, 14:3, 14:7, 14:14, 14:19, 14:24, 15:14,</p>

15:16, 16:17, 17:4, 17:7,  
17:9, 17:20, 18:3, 18:10,  
24:7, 24:11, 24:12, 26:24,  
32:10, 63:11, 69:14, 69:15,  
69:18, 71:12, 71:22, 72:5,  
72:8, 73:13, 73:20, 74:23,  
74:24, 74:25, 77:12, 86:12,  
93:8, 93:25, 95:16, 100:24,  
103:16

**bits** [8] - 72:9, 73:15, 75:7,  
75:8, 104:3, 104:4, 104:11  
**black** [3] - 70:21, 72:3,  
101:20

**blade** [173] - 4:25, 7:11, 7:22,  
8:23, 8:25, 11:5, 17:23,  
20:5, 20:14, 20:15, 22:12,  
26:9, 26:10, 26:22, 28:4,  
30:6, 30:9, 31:8, 33:17,  
33:19, 34:8, 34:9, 34:11,  
34:19, 34:22, 35:1, 40:25,  
41:14, 41:21, 41:22, 41:23,  
41:24, 42:5, 42:7, 44:7,  
47:21, 48:4, 48:7, 49:12,  
49:15, 49:17, 50:3, 50:13,  
50:14, 50:18, 52:18, 52:19,  
53:20, 56:10, 58:7, 58:13,  
60:2, 60:12, 60:13, 61:19,  
62:3, 62:5, 62:7, 63:13,  
64:2, 64:16, 66:9, 66:10,  
66:13, 76:17, 76:18, 76:19,  
76:20, 76:25, 77:15, 77:24,  
78:23, 78:24, 79:21, 79:22,  
80:5, 80:11, 80:12, 80:13,  
80:14, 81:1, 81:3, 81:5,  
81:16, 82:23, 82:24, 84:1,  
84:3, 84:9, 84:10, 84:12,  
84:13, 84:14, 84:15, 84:17,  
84:19, 84:23, 85:5, 85:6,  
85:10, 85:16, 85:17, 85:18,  
85:19, 85:20, 85:21, 85:23,  
86:1, 86:3, 86:4, 86:6,  
86:7, 86:9, 86:10, 86:11,  
86:12, 86:13, 86:14, 86:24,  
86:25, 87:2, 96:2, 96:10,  
96:11, 96:12, 98:7, 98:8,  
98:12, 98:24, 98:25, 99:1,  
99:6, 99:14, 100:4, 100:5,  
101:23

**blade/cutting** [1] - 23:2

**blades** [185] - 8:3, 10:16,  
13:6, 17:22, 17:24, 18:2,  
18:15, 19:20, 19:21, 20:21,  
25:17, 26:14, 26:16, 27:21,  
29:8, 30:1, 30:4, 31:2,  
31:4, 33:13, 33:16, 33:21,  
33:22, 33:23, 34:15, 34:20,  
34:25, 35:12, 35:16, 35:21,  
35:23, 36:4, 36:5, 36:6,  
36:7, 36:8, 36:10, 36:20,  
36:23, 37:18, 37:19, 38:4,

39:5, 39:10, 39:24, 40:1,  
40:3, 40:5, 40:8, 40:12,  
40:15, 41:6, 41:8, 44:4,  
44:5, 46:18, 46:19, 46:23,  
46:24, 47:3, 47:7, 47:8,  
47:11, 47:16, 48:1, 48:7,  
49:1, 49:4, 49:5, 49:9,  
49:23, 49:24, 50:1, 50:7,  
50:12, 51:3, 53:17, 55:18,  
55:23, 55:24, 56:1, 56:5,  
56:8, 56:9, 56:21, 57:1,  
57:6, 57:9, 57:12, 57:15,  
57:17, 57:19, 57:20, 58:1,  
58:3, 58:5, 58:11, 58:14,  
58:23, 58:24, 59:25, 60:11,  
65:13, 66:7, 66:16, 66:19,  
66:21, 66:25, 67:1, 67:3,  
69:24, 70:4, 70:12, 70:18,  
71:6, 71:7, 71:12, 72:21,  
75:13, 75:15, 75:22, 75:23,  
76:1, 76:5, 76:6, 76:11,  
77:21, 77:25, 78:4, 78:6,  
78:8, 78:20, 78:21, 79:5,  
79:11, 80:5, 80:13, 81:4,  
82:2, 82:13, 82:15, 83:4,  
83:13, 83:19, 83:21, 85:3,  
85:5, 85:10, 85:16, 86:18,  
86:20, 87:4, 87:23, 87:24,  
87:25, 88:3, 88:6, 88:7,  
88:13, 88:16, 88:17, 89:9,  
89:10, 89:22, 90:5, 90:8,  
90:11, 90:17, 90:23, 91:1,  
91:20, 93:5, 93:7, 93:15,  
93:18, 101:1, 103:2

**block** [1] - 25:4

**blue** [4] - 16:8, 49:9, 58:2,  
96:11

**Bobby** [1] - 7:6

**body** [4] - 10:17, 55:13,  
55:24, 72:5

**boilerplate** [2] - 87:9, 87:12

**bore** [15] - 10:8, 15:6, 18:2,  
20:1, 61:4, 61:9, 77:22,  
79:2, 84:20, 85:2, 85:3,  
85:11, 95:13, 97:16,  
100:21

**bored** [1] - 62:16

**bottom** [25] - 7:18, 13:19,  
22:15, 24:24, 35:20, 37:14,  
40:5, 41:10, 47:1, 48:16,  
70:1, 70:14, 70:20, 79:3,  
79:23, 80:2, 80:4, 92:14,  
92:19, 92:23, 95:24, 99:3,  
100:17

**bouncing** [1] - 26:13

**Bowick** [13] - 1:14, 4:18, 5:8,  
7:6, 9:9, 9:11, 9:14, 19:18,  
19:22, 29:8, 43:2, 44:11,  
44:16

**BOWICK** [39] - 1:14, 6:4, 7:1,

9:19, 9:24, 11:1, 11:3,  
12:10, 12:13, 12:17, 15:4,  
15:8, 16:4, 16:7, 17:8,  
18:21, 19:16, 37:6, 39:21,  
44:25, 45:2, 45:5, 48:11,  
48:14, 48:17, 48:24, 50:10,  
50:25, 62:13, 64:8, 64:10,  
74:14, 74:17, 104:24,  
105:5, 105:8, 105:10,  
105:14, 105:21

**break** [3] - 44:14, 44:18, 88:2

**brief** [16] - 15:9, 22:24,  
23:18, 38:10, 42:21, 50:20,  
51:15, 53:4, 54:1, 58:16,  
59:5, 72:13, 74:3, 97:18,  
97:24, 105:8

**briefing** [2] - 20:9, 105:18

**briefly** [2] - 66:4, 102:14

**briefs** [1] - 73:2

**broad** [1] - 88:22

**broaden** [1] - 88:16

**brochures** [1] - 36:22

**broken** [1] - 93:25

**brought** [3] - 5:21, 6:20, 90:1

**builds** [1] - 14:13

**busy** [1] - 95:2

**button** [2] - 22:11, 25:3

**buttons** [6] - 22:7, 22:15,  
23:11, 23:14, 61:21, 61:22

**BY** [1] - 1:24

## C

**Caitlin** [3] - 1:19, 3:16, 73:12

**Caitlin's** [1] - 62:20

**cams** [1] - 105:24

**cannot** [2] - 37:9, 89:13

**carafe** [1] - 64:6

**carbide** [19] - 8:7, 8:14, 24:6,  
24:13, 24:19, 25:3, 27:21,  
32:4, 32:9, 36:11, 42:16,

47:13, 52:6, 61:3, 95:7,

95:24, 96:4, 96:5, 100:17

**carbon** [1] - 47:13

**cardinal** [4] - 29:18, 29:20,

29:21, 45:18

**care** [1] - 43:13

**carry** [1] - 23:6

**case** [23] - 5:6, 5:14, 6:21,  
9:20, 10:11, 11:9, 19:18,  
21:1, 21:21, 23:22, 24:20,  
26:14, 33:12, 37:14, 37:17,  
39:15, 39:16, 41:9, 45:22,  
73:16, 93:10, 103:4,  
105:21

**cases** [8] - 20:25, 21:17,  
29:18, 34:5, 34:7, 34:10,  
41:16, 89:12

**casing** [17] - 14:16, 17:19,  
17:20, 18:1, 18:22, 18:23,

51:5, 51:6, 51:7, 51:12,  
53:7, 53:11, 53:12, 53:14,  
101:19, 102:4, 102:9

**causes** [1] - 19:1

**cdean@fr.com** [1] - 1:23

**cementing** [1] - 14:17

**center** [1] - 10:14

**central** [1] - 18:1

**centralize** [1] - 10:17

**certain** [6] - 20:19, 20:20,  
20:21, 25:23, 26:1

**certainly** [2] - 57:11, 96:25

**certify** [1] - 106:8

**change** [3] - 17:7, 63:18,  
75:4

**changed** [2] - 24:1, 74:23

**changing** [1] - 102:13

**characterized** [1] - 103:24

**chart** [1] - 48:13

**cheap** [1] - 12:15

**checked** [1] - 73:5

**child** [1] - 94:15

**chisel** [1] - 56:16

**chisel-type** [1] - 56:16

**chiseled** [1] - 56:21

**chose** [1] - 51:16

**churn** [1] - 19:7

**circle** [10] - 24:11, 43:19,  
43:20, 48:3, 51:25, 52:2,  
96:14, 96:22, 97:9

**circled** [1] - 60:11

**circles** [2] - 96:19

**Circuit** [6] - 20:23, 65:1,  
68:7, 68:13, 89:13, 103:4

**circular** [14] - 43:18, 76:22,

79:1, 95:12, 96:6, 96:14,

96:16, 97:6, 97:8, 97:10,

97:14, 98:2, 98:5, 100:19

**circulatory** [1] - 20:2

**circumferential** [1] - 70:22

**circumstances** [1] - 69:5

**cite** [1] - 77:4

**cited** [2] - 21:2, 21:13

**Civil** [1] - 1:5

**civility** [1] - 6:19

**Claim** [1] - 41:4

**claim** [79] - 5:9, 5:10, 5:19,  
6:11, 6:12, 7:9, 7:10, 7:21,  
7:24, 8:2, 8:20, 8:22, 9:10,

9:16, 20:4, 20:12, 20:24,

21:2, 21:4, 21:5, 21:17,

23:4, 23:5, 23:9, 23:20,

23:24, 25:13, 25:14, 27:5,

27:11, 31:1, 31:7, 33:20,

33:22, 34:6, 37:1, 37:4,

37:9, 37:10, 37:11, 37:13,

37:16, 37:21, 38:9, 38:17,

39:11, 40:15, 40:17, 40:21,

40:22, 41:3, 41:4, 41:10,

41:11, 46:3, 54:6, 54:9,

54:25, 55:5, 58:5, 63:23,  
63:25, 64:14, 64:25, 65:9,  
65:17, 68:14, 69:4, 73:1,  
93:7, 93:9, 102:24, 103:14,  
103:18, 104:11

**claimed** [3] - 8:13, 58:1

**claiming** [1] - 51:17

**Claims** [1] - 58:10

**claims** [90] - 20:10, 20:22,  
25:25, 26:18, 26:20, 26:22,  
27:13, 27:14, 28:7, 28:15,  
29:16, 29:19, 29:23, 33:7,  
33:15, 33:24, 33:25, 34:4,  
35:7, 35:8, 37:3, 37:15,  
37:18, 37:24, 37:25, 38:3,  
38:5, 38:8, 38:13, 38:14,  
38:20, 38:24, 39:6, 39:7,  
39:9, 39:11, 39:25, 40:2,  
40:24, 41:18, 41:19, 45:12,  
45:14, 45:20, 45:24, 46:17,  
46:18, 46:20, 47:25, 49:4,  
49:25, 50:1, 50:16, 54:17,  
55:17, 56:4, 56:5, 58:9,  
62:7, 62:8, 62:9, 64:12,  
64:13, 65:2, 65:21, 65:22,  
65:23, 68:21, 69:9, 87:4,  
88:16, 89:13, 89:15, 89:17,  
90:4, 90:9, 90:10, 90:12,  
90:22, 91:1, 103:4, 103:6,  
104:7

**clarification** [1] - 7:23

**clarify** [1] - 21:7

**clarity** [1] - 54:7

**clean** [1] - 3:8

**clear** [17] - 28:9, 41:11,  
45:16, 46:2, 46:6, 46:7,  
47:6, 49:18, 54:3, 54:5,  
54:24, 55:2, 65:8, 69:8,  
74:19, 81:8, 104:7

**clearly** [6] - 49:22, 56:19,

78:10, 82:5, 89:16, 89:18

**CLERK** [3] - 105:2, 105:12,  
105:16

**clerk** [1] - 7:2

**client's** [1] - 11:14

**close** [1] - 10:14

**closely** [1] - 64:24

**closest** [1] - 55:9

**coded** [1] - 76:15

**cold** [1] - 3:6

**colder** [2] - 3:6

**color** [4] - 51:17, 52:16,  
76:15, 76:16

**color-coded** [1] - 76:15

**colored** [3] - 49:9, 52:18,  
59:13

**colors** [1] - 52:14

**column** [3] - 46:22, 77:5,  
95:9

**coming** [10] - 43:20, 51:24,

52:1, 79:2, 84:19, 85:1,  
85:10, 99:14, 100:2, 100:3

**comma** [1] - 59:1

**commercial** [5] - 53:3, 70:10,

71:8, 101:7, 102:7

**commit** [1] - 29:20

**compare** [2] - 52:14, 52:15

**compels** [1] - 44:9

**complete** [2] - 5:17, 6:21

**completely** [1] - 101:19

**components** [1] - 41:12

**compression** [2] - 71:16,  
73:22

**comprise** [4] - 47:12, 90:8,  
95:24, 100:17

**comprised** [1] - 57:15

**comprises** [4] - 45:8, 47:13,  
47:19, 75:15

**comprising** [2] - 41:4, 56:1

**COMPUTER** [1] - 1:25

**computer** [1] - 73:24

**COMPUTER-AIDED** [1] -  
1:25

**concept** [3] - 30:5, 71:15,  
72:19

**concert** [1] - 19:7

**concisely** [1] - 105:17

**conclude** [1] - 43:1

**concluded** [1] - 106:2

**concludes** [1] - 62:10

**conclusion** [1] - 41:20

**concrete** [1] - 25:4

**conditioning** [1] - 94:20

**conditions** [1] - 103:13

**cone** [11] - 24:7, 72:9, 73:13,  
73:15, 73:19, 74:25, 75:7,  
75:8, 104:4, 104:11

**configuration** [7] - 25:17,  
27:10, 27:13, 38:4, 40:22,  
46:23, 78:4

**confine** [1] - 28:11

**confined** [1] - 89:19

**confirming** [1] - 58:12

**confirms** [2] - 54:20, 55:4

**confuse** [1] - 91:17

**confused** [1] - 4:16

**confusing** [1] - 81:7

**confusion** [1] - 25:2

**considered** [1] - 34:6

**consistent** [4] - 10:5, 58:24,  
61:23, 61:24

**constantly** [1] - 19:3

**construction** [44] - 7:9, 7:23,  
8:20, 8:24, 9:11, 9:12,  
9:16, 20:19, 21:6, 21:15,  
23:9, 27:5, 27:11, 28:10,  
31:7, 31:10, 31:13, 33:4,  
33:12, 38:9, 44:12, 50:11,  
50:19, 54:21, 63:23, 63:25,  
64:14, 64:25, 65:9, 65:17,

68:15, 73:1, 75:17, 75:18,  
88:6, 88:16, 88:22, 89:2,  
93:13, 95:6, 102:24,  
103:14, 103:18, 104:11

**constructions** [2] - 64:23,  
95:5

**construe** [4] - 9:3, 21:12,  
50:16, 69:9

**construed** [3] - 8:23, 20:12,  
37:12

**construing** [2] - 23:2, 45:25

**contact** [4] - 32:14, 79:2,  
85:11, 85:18

**contacts** [1] - 32:8

**contain** [3] - 66:11, 66:12

**contains** [1] - 66:14

**contends** [1] - 8:19

**context** [7] - 11:20, 32:22,  
69:15, 70:9, 71:13, 87:6,  
100:14

**continue** [1] - 63:19

**contract** [1] - 64:18

**contracts** [1] - 45:11

**contradicts** [2] - 69:6,  
103:20

**contrary** [3] - 41:17, 53:23,  
93:13

**contrast** [4] - 61:6, 70:16,  
72:8, 72:10

**cooling** [1] - 94:17

**copy** [1] - 62:21

**corkscrew** [4] - 13:25, 14:8,  
15:1, 16:1

**corner** [3] - 24:24, 43:4,  
95:20

**corners** [2] - 45:11, 54:11

**correct** [7] - 9:12, 15:6,  
54:21, 85:22, 103:25,  
105:14, 106:8

**corresponding** [1] - 52:21

**counsel** [9] - 35:10, 36:23,  
48:23, 63:10, 64:17, 74:12,  
78:2, 79:18, 103:22

**counter** [1] - 90:23

**couple** [2] - 5:4, 7:19

**course** [5] - 19:24, 26:14,  
28:24, 63:8, 64:21

**COURT** [116] - 1:1, 2:1, 3:3,  
3:15, 3:19, 3:23, 4:2, 4:5,  
4:7, 4:12, 5:11, 5:13, 5:15,  
5:21, 6:6, 6:9, 6:13, 6:16,  
6:23, 7:4, 8:9, 9:18, 9:23,  
10:25, 11:2, 12:9, 12:11,  
12:15, 15:3, 15:5, 16:2,  
16:5, 17:6, 18:20, 19:15,  
30:10, 30:12, 30:14, 30:16,  
30:19, 30:21, 31:19, 31:25,  
35:25, 36:2, 36:12, 36:14,  
37:5, 37:8, 38:22, 39:1,  
39:3, 39:14, 40:7, 40:9,

40:11, 41:25, 42:3, 43:7,  
44:13, 44:19, 44:24, 45:1,  
45:4, 48:10, 48:12, 48:15,  
48:21, 50:9, 50:24, 62:12,  
62:15, 63:2, 63:6, 63:15,  
63:19, 64:6, 67:19, 67:23,  
68:9, 72:23, 73:6, 74:1,  
74:8, 74:11, 74:15, 75:3,  
75:11, 75:13, 78:16, 81:20,  
82:10, 88:4, 88:8, 91:7,  
91:9, 91:15, 93:22, 94:4,  
94:7, 94:14, 94:25, 96:19,  
96:22, 97:2, 97:5, 98:15,  
98:17, 101:4, 101:13,  
102:17, 104:15, 104:17,  
104:19, 105:19, 105:23

**court** [11] - 3:13, 4:9, 5:5,  
8:9, 9:22, 25:22, 29:15,  
35:10, 36:24, 44:22, 91:18

**Court** [18] - 20:22, 21:16,  
22:8, 22:9, 22:11, 22:17,  
23:1, 24:7, 25:13, 29:12,  
29:22, 44:23, 56:23, 59:9,  
59:11, 63:22, 68:25, 105:1

**Court's** [5] - 9:8, 9:15, 9:20,  
39:21, 45:9

**courthouse** [1] - 43:3

**courtroom** [1] - 22:3

**courtrooms** [1] - 94:16

**courts** [1] - 21:11

**Courts** [1] - 23:5

**cover** [4] - 81:5, 88:12,  
88:22, 103:5

**coverage** [1] - 64:19

**covering** [3] - 104:9, 104:10

**creates** [3] - 14:1, 14:11,  
46:5

**critical** [1] - 95:11

**crowning** [1] - 3:5

**CRR** [2] - 2:2, 106:13

**crucially** [1] - 25:24

**crush** [1] - 72:11

**crushing** [3] - 72:10, 73:13,  
73:19

**crushings** [1] - 32:16

**crystalline** [1] - 52:7

**CSR** [2] - 2:2, 106:13

**curvature** [1] - 15:23

**curved** [2] - 53:19, 77:9

**customary** [5] - 21:3, 21:5,  
23:6, 46:8, 54:10

**cut** [80] - 8:3, 8:8, 8:16, 9:2,  
11:11, 13:6, 18:14, 19:3,  
20:16, 21:25, 22:7, 22:8,  
22:10, 22:11, 23:11, 23:14,  
24:16, 24:22, 25:1, 25:21,  
27:25, 28:3, 29:8, 29:9,  
30:4, 30:8, 31:2, 31:4,  
32:23, 33:2, 33:4, 33:14,  
34:20, 34:23, 36:6, 36:7,



36:8, 36:10, 42:1, 42:5, 42:11, 42:18, 42:22, 42:24, 43:22, 44:2, 44:5, 46:13, 51:8, 52:6, 52:8, 53:9, 59:4, 65:11, 65:14, 65:17, 67:6, 67:8, 67:11, 67:14, 72:4, 81:15, 83:25, 84:2, 84:4, 84:20, 85:1, 86:2, 99:15, 99:21, 102:4, 102:16, 102:25, 103:16, 104:1

**cuts** [21] - 8:25, 10:20, 13:11, 20:15, 25:7, 25:9, 26:9, 26:11, 28:5, 31:8, 34:12, 34:18, 34:22, 42:7, 43:23, 72:7, 88:23, 102:24, 103:16, 104:1

**cutter** [5] - 32:10, 34:8, 60:17, 71:23, 72:7

**cutters** [15] - 13:5, 32:4, 32:9, 32:12, 58:23, 59:2, 59:14, 59:15, 60:14, 61:14, 66:14, 101:11, 101:13

**cutting** [358] - 4:25, 5:1, 7:11, 8:23, 9:1, 10:3, 13:6, 13:7, 18:8, 18:15, 19:5, 19:20, 19:24, 19:25, 20:4, 20:5, 20:14, 20:16, 22:12, 22:16, 23:2, 24:14, 24:21, 24:23, 25:22, 25:23, 26:9, 26:10, 26:22, 27:1, 27:6, 29:8, 29:9, 29:10, 30:6, 30:8, 30:9, 31:1, 31:4, 31:8, 31:11, 31:16, 32:15, 32:18, 32:22, 33:1, 33:6, 33:16, 33:17, 33:21, 34:8, 34:9, 34:10, 34:11, 34:14, 34:17, 34:20, 34:21, 34:25, 36:2, 36:5, 36:6, 36:7, 36:8, 36:14, 36:18, 37:24, 38:20, 40:25, 41:1, 41:5, 41:14, 41:22, 41:23, 41:24, 41:25, 42:1, 42:5, 42:6, 42:7, 42:10, 42:11, 42:19, 43:24, 44:3, 44:5, 44:7, 46:10, 46:11, 46:13, 46:18, 46:19, 46:23, 46:24, 47:2, 47:7, 47:8, 47:11, 47:12, 48:1, 48:20, 48:22, 48:24, 48:25, 49:3, 49:5, 49:9, 49:10, 49:23, 50:7, 50:13, 50:18, 52:24, 55:18, 55:22, 55:24, 55:25, 56:1, 56:5, 56:8, 56:10, 56:12, 56:14, 56:18, 56:21, 56:22, 57:1, 57:6, 57:9, 57:10, 57:15, 57:16, 57:17, 58:1, 58:3, 58:5, 58:7, 58:11, 58:13, 58:19, 61:19, 62:3, 62:5, 62:6, 63:13, 63:14, 64:2, 64:3, 64:15, 64:16, 65:13, 66:10,

66:12, 66:13, 66:14, 66:16, 66:17, 66:18, 66:19, 66:21, 67:3, 70:12, 70:13, 70:20, 71:6, 71:7, 71:25, 72:4, 72:10, 72:16, 72:21, 73:11, 73:18, 74:23, 74:24, 75:13, 75:15, 75:21, 75:22, 75:23, 76:1, 76:6, 76:7, 76:9, 76:16, 76:17, 76:20, 77:1, 77:15, 77:22, 78:1, 78:4, 78:5, 78:6, 78:8, 78:23, 79:5, 79:9, 79:10, 79:22, 80:1, 80:2, 80:6, 80:10, 80:12, 80:13, 80:14, 80:23, 80:24, 81:2, 82:2, 82:13, 83:13, 83:22, 84:5, 84:16, 84:25, 85:11, 85:18, 86:5, 86:24, 86:25, 87:1, 87:24, 87:25, 88:3, 88:5, 88:6, 88:13, 88:16, 88:17, 88:19, 89:9, 89:22, 90:4, 90:5, 90:7, 90:8, 90:11, 90:17, 90:22, 91:1, 91:2, 91:20, 91:24, 92:1, 92:17, 93:5, 93:7, 93:15, 93:16, 93:18, 93:21, 95:3, 95:6, 95:7, 95:12, 95:17, 95:23, 96:6, 96:16, 97:4, 97:7, 97:10, 97:14, 97:25, 98:6, 98:9, 98:13, 98:14, 98:22, 99:1, 99:2, 99:4, 99:5, 99:8, 99:23, 100:2, 100:6, 100:12, 100:13, 100:14, 100:16, 100:19, 100:25, 101:1, 101:9, 101:10, 101:17, 101:22, 101:23, 102:3, 102:9, 102:10, 102:15, 102:20, 103:2, 103:11

**cuttings** [4] - 20:2, 32:17, 46:15

## D

**daily** [1] - 4:6

**damaged** [2] - 53:12, 53:14

**dark** [3] - 72:2, 98:22, 98:24

**dash** [1] - 105:24

**dash-cams** [1] - 105:24

**Date** [1] - 106:13

**dated** [1] - 57:4

**days** [1] - 17:11

**dean** [9] - 3:17, 6:23, 62:15, 62:20, 63:10, 63:13, 66:5, 67:20, 88:12

**Dean** [3] - 1:19, 93:19, 93:21

**DEAN** [11] - 67:22, 68:1, 68:13, 74:3, 95:4, 96:21, 97:6, 98:3, 98:19, 101:5, 101:14

**decide** [2] - 35:9, 100:11

**decision** [4] - 63:24, 64:25, 65:12

**declare** [1] - 25:22

**Defendant** [1] - 1:8

**DEFENDANT** [1] - 1:18

**defendants** [1] - 45:21

**define** [14] - 10:2, 11:3, 21:16, 25:13, 27:7, 28:7, 29:4, 33:9, 37:19, 39:17, 41:13, 47:25, 64:2, 64:3

**defined** [2] - 10:6, 31:14

**defines** [1] - 23:4

**defining** [2] - 75:21, 75:22

**definite** [1] - 103:8

**definition** [8] - 5:1, 11:18, 11:19, 32:12, 34:17, 34:22, 54:2, 69:11

**definitions** [8] - 11:8, 11:14, 11:15, 30:8, 31:16, 31:22, 32:3, 105:6

**definitive** [7] - 54:23, 54:24, 55:2, 90:6, 90:13, 90:19, 91:4

**degree** [3] - 79:19, 79:20, 80:2

**degrees** [5] - 18:24, 19:20, 80:3, 80:4

**demonstrate** [1] - 49:22

**demonstrated** [3] - 28:8, 46:2, 104:4

**demonstration** [1] - 15:11

**demonstrative** [2] - 22:4, 105:13

**denote** [1] - 41:18

**dependent** [26] - 26:20, 27:14, 33:24, 33:25, 37:2, 37:4, 37:9, 37:13, 37:15, 37:20, 37:24, 38:4, 38:14, 38:19, 38:24, 39:7, 39:11, 40:17, 40:21, 41:2, 45:14, 46:18, 49:4, 49:25, 58:9, 62:8

**depicted** [1] - 84:6

**depicting** [2] - 78:25, 79:17

**depiction** [3] - 78:10, 78:15, 78:18

**deposition** [3] - 27:17, 28:1, 67:11

**depression** [1] - 94:15

**derrick** [1] - 12:18

**Deschutter** [1] - 34:16

**describe** [4] - 24:20, 34:14, 61:3, 85:6

**described** [7] - 14:1, 19:8, 24:13, 32:5, 71:8, 89:14, 96:4

**describes** [8] - 20:5, 34:19, 41:2, 53:18, 59:21, 59:23, 81:17, 84:7

**describing** [5] - 41:7, 47:22, 63:12, 77:17, 85:4

**description** [11] - 29:7, 29:19, 29:23, 45:10, 53:1, 54:3, 77:18, 78:7, 91:3, 95:9, 95:10

**design** [1] - 80:18

**designed** [6] - 17:15, 24:25, 28:4, 35:4, 42:1, 42:19

**detail** [1] - 38:18

**device** [2] - 103:5

**diameter** [17] - 13:14, 14:5, 14:9, 14:11, 14:18, 14:21, 14:25, 15:5, 15:10, 15:13, 15:14, 16:16, 18:3, 59:20, 82:22, 86:9, 87:18

**diamond** [8] - 47:14, 52:7, 95:7, 95:25, 96:4, 96:5, 100:18, 102:8

**dictates** [1] - 93:13

**dictionaries** [6] - 10:1, 10:2, 10:6, 10:19, 11:15, 69:1

**Dictionary** [1] - 10:21

**dictionary** [4] - 11:6, 30:7, 32:3, 32:13

**difference** [4] - 37:2, 72:15, 73:10, 79:24

**differences** [1] - 75:17

**different** [46] - 6:4, 9:4, 20:6, 24:2, 25:16, 25:18, 26:2, 26:6, 26:11, 26:13, 27:8, 28:5, 40:13, 41:3, 41:7, 41:8, 41:9, 41:17, 41:18, 41:19, 41:22, 46:20, 46:21, 47:5, 52:1, 59:18, 63:17, 71:17, 73:18, 74:25, 75:1, 75:6, 80:18, 80:21, 82:3, 82:16, 83:18, 84:9, 87:6, 87:10, 87:17, 87:18, 101:20

**differentiation** [5] - 37:1, 37:11, 38:17, 93:8, 93:10

**differently** [2] - 35:6, 78:3

**difficult** [1] - 30:5

**dig** [2] - 69:16, 72:19

**dimensional** [8] - 76:23, 95:18, 96:15, 96:23, 97:1, 97:4, 97:9, 98:1

**direction** [2] - 10:15, 101:25

**directly** [1] - 35:8

**disagree** [1] - 37:22

**disagreement** [1] - 23:10

**disappears** [2] - 99:17, 99:22

**disavow** [1] - 54:6

**disclaimer** [2] - 54:24, 55:2

**disclose** [2] - 64:20, 96:16

**disclosed** [11] - 53:18, 64:15, 64:21, 76:3, 76:4, 88:25, 89:24, 95:23, 97:17, 102:11, 103:1

<p><b>discloses</b> [9] - 55:18, 55:22, 55:25, 57:14, 58:10, 87:24, 91:20, 93:15</p> <p><b>disclosing</b> [1] - 87:7</p> <p><b>disclosure</b> [6] - 64:24, 66:3, 66:20, 75:24, 97:6, 100:15</p> <p><b>disclosures</b> [1] - 89:8</p> <p><b>discuss</b> [3] - 9:10, 29:8, 102:19</p> <p><b>discussed</b> [4] - 83:21, 97:19, 98:4, 100:23</p> <p><b>discussing</b> [2] - 9:7, 92:14</p> <p><b>discussion</b> [6] - 5:19, 68:17, 71:4, 71:13, 71:19, 72:21</p> <p><b>Discussion</b> [1] - 106:1</p> <p><b>disposed</b> [1] - 46:15</p> <p><b>dispositive</b> [1] - 68:15</p> <p><b>dispute</b> [3] - 24:15, 35:16, 35:19</p> <p><b>disputed</b> [4] - 21:6, 55:5, 68:16, 69:4</p> <p><b>distance</b> [7] - 33:17, 48:1, 86:6, 86:7, 86:25, 87:1, 87:17</p> <p><b>distinct</b> [1] - 41:12</p> <p><b>distinction</b> [2] - 57:25, 61:12</p> <p><b>distinguish</b> [1] - 90:13</p> <p><b>distinguished</b> [1] - 101:15</p> <p><b>distinguishing</b> [2] - 35:1, 102:2</p> <p><b>distributed</b> [2] - 79:9, 82:15</p> <p><b>DISTRICT</b> [2] - 1:1, 1:2</p> <p><b>district</b> [1] - 21:11</p> <p><b>divergence</b> [1] - 3:4</p> <p><b>divided</b> [1] - 6:3</p> <p><b>DIVISION</b> [1] - 1:3</p> <p><b>do-over</b> [1] - 25:11</p> <p><b>document</b> [5] - 45:11, 54:11, 64:21, 102:2, 102:7</p> <p><b>documents</b> [7] - 12:6, 35:19, 65:3, 65:4, 65:8, 65:20, 66:2</p> <p><b>dog</b> [1] - 37:11</p> <p><b>dome</b> [15] - 25:21, 51:3, 51:16, 52:2, 52:22, 53:2, 53:6, 53:10, 59:6, 61:17, 97:3, 98:12, 99:2, 99:3, 101:16</p> <p><b>dome-shaped</b> [1] - 25:21</p> <p><b>domed</b> [30] - 8:7, 8:14, 21:25, 23:14, 24:5, 24:12, 24:16, 24:19, 24:22, 24:25, 25:3, 26:3, 26:23, 27:21, 27:22, 27:25, 28:19, 28:24, 29:9, 29:13, 30:4, 32:11, 42:24, 43:19, 43:21, 44:2, 49:13, 49:17, 50:6, 61:11</p> <p><b>domed-shape</b> [1] - 61:11</p> <p><b>domes</b> [33] - 11:4, 29:17, 38:2, 51:2, 51:5, 51:11,</p>	<p>52:10, 52:16, 59:7, 61:6, 61:13, 65:11, 65:14, 65:17, 66:13, 67:6, 67:8, 67:11, 67:13, 70:19, 97:22, 98:11, 98:14, 100:12, 100:24, 101:18, 101:19, 102:3, 102:4, 102:9, 102:16, 104:1</p> <p><b>done</b> [7] - 4:9, 16:19, 21:23, 22:17, 27:3, 93:20, 103:13</p> <p><b>dots</b> [1] - 16:6</p> <p><b>dotted</b> [3] - 15:25, 81:11, 81:12</p> <p><b>double</b> [1] - 81:11</p> <p><b>down</b> [46] - 5:6, 5:17, 5:24, 8:8, 8:12, 8:16, 11:24, 12:5, 13:12, 14:5, 14:16, 15:1, 15:18, 17:19, 19:3, 19:24, 22:1, 22:17, 27:19, 28:1, 32:18, 33:5, 40:6, 40:7, 40:24, 42:8, 42:11, 42:18, 43:20, 44:17, 51:12, 58:9, 59:6, 60:3, 60:11, 60:18, 68:9, 70:24, 78:12, 79:14, 79:15, 95:14, 100:22, 103:13, 105:25</p> <p><b>Dr</b> [3] - 10:21, 11:16, 11:17</p> <p><b>drawing</b> [8] - 69:25, 79:3, 84:11, 84:12, 84:16, 97:11, 101:8, 101:18</p> <p><b>drawings</b> [2] - 35:22, 38:1</p> <p><b>drift</b> [11] - 13:14, 13:18, 14:5, 14:9, 14:11, 14:18, 14:21, 14:25, 15:5, 15:10, 16:16</p> <p><b>drill</b> [42] - 10:8, 10:9, 10:12, 10:13, 12:17, 12:18, 12:19, 13:2, 13:15, 13:16, 13:20, 13:21, 13:25, 14:7, 14:12, 14:14, 14:15, 14:19, 15:14, 15:21, 15:25, 16:17, 16:21, 17:4, 17:7, 17:8, 17:9, 17:20, 18:3, 18:9, 24:12, 29:5, 51:1, 71:9, 72:11, 95:14, 100:21, 103:16, 104:3</p> <p><b>DRILL</b> [1] - 1:7</p> <p><b>Drill</b> [36] - 7:8, 7:15, 7:22, 8:13, 8:19, 9:3, 11:9, 11:25, 20:6, 21:13, 21:24, 23:7, 25:10, 26:13, 29:11, 29:25, 31:3, 33:12, 35:5, 36:2, 36:19, 37:17, 41:13, 42:14, 52:11, 52:20, 56:11, 57:10, 58:15, 59:4, 59:10, 59:14, 66:6, 68:4, 70:9, 102:8</p> <p><b>Drill's</b> [37] - 7:19, 9:5, 12:6, 20:19, 22:24, 23:23, 24:18, 26:3, 26:15, 26:23, 27:17, 27:25, 28:10, 29:10, 30:24,</p>	<p>32:19, 35:10, 35:11, 35:19, 36:9, 39:23, 40:13, 42:21, 42:22, 43:25, 50:10, 50:19, 50:20, 51:15, 53:20, 64:23, 69:11, 70:16, 71:11, 75:17, 89:1, 103:23</p> <p><b>drill's</b> [1] - 95:6</p> <p><b>drill-N-ream</b> [2] - 51:1, 71:9</p> <p><b>Drill-N-Ream</b> [2] - 70:9, 102:8</p> <p><b>driller</b> [1] - 16:18</p> <p><b>drillers</b> [1] - 14:12</p> <p><b>drilling</b> [16] - 8:25, 9:2, 10:6, 11:17, 13:12, 13:14, 16:16, 16:22, 17:10, 18:23, 31:9, 33:5, 50:22, 71:16, 101:6, 101:8</p> <p><b>Drilling</b> [1] - 10:22</p> <p><b>drills</b> [2] - 16:10, 32:8</p> <p><b>drive</b> [1] - 12:18</p> <p><b>DTI</b> [1] - 51:2</p> <p><b>dual</b> [1] - 55:10</p> <p><b>durable</b> [1] - 24:21</p> <p><b>during</b> [5] - 51:10, 61:9, 67:17, 86:21</p> <p><b>Dye</b> [2] - 106:12, 106:13</p> <p><b>DYE</b> [1] - 2:2</p>	<p><b>electronically</b> [1] - 105:1</p> <p><b>element</b> [1] - 36:14</p> <p><b>elements</b> [3] - 41:3, 41:10, 41:11</p> <p><b>embed</b> [1] - 60:15</p> <p><b>embedded</b> [2] - 51:21, 60:22</p> <p><b>embodiment</b> [39] - 28:12, 28:13, 28:17, 28:18, 28:21, 28:22, 28:23, 29:1, 29:2, 48:6, 49:8, 49:18, 49:24, 50:16, 50:17, 53:3, 53:18, 53:22, 53:23, 61:12, 70:10, 71:9, 76:21, 76:22, 77:6, 78:10, 78:19, 80:21, 81:23, 82:3, 83:17, 84:9, 89:4, 89:7, 101:7, 102:7</p> <p><b>embodiments</b> [3] - 49:21, 76:10, 89:5</p> <p><b>Emmylou</b> [1] - 68:10</p> <p><b>emphasized</b> [1] - 55:21</p> <p><b>encompasses</b> [1] - 89:19</p> <p><b>end</b> [3] - 32:7, 32:8, 65:20</p> <p><b>engage</b> [2] - 19:2, 61:8</p> <p><b>engagement</b> [2] - 19:5, 19:9</p> <p><b>engages</b> [1] - 13:19</p> <p><b>engaging</b> [1] - 46:11</p> <p><b>engineering</b> [2] - 35:22, 90:18</p> <p><b>engineers</b> [1] - 55:15</p> <p><b>enlarge</b> [3] - 19:25, 61:8, 89:14</p> <p><b>enlarged</b> [1] - 16:16</p> <p><b>enlarging</b> [1] - 10:7</p> <p><b>entitled</b> [1] - 106:9</p> <p><b>enumerated</b> [1] - 100:5</p> <p><b>equal</b> [1] - 87:1</p> <p><b>equipment</b> [1] - 12:16</p> <p><b>errors</b> [1] - 28:25</p> <p><b>especially</b> [1] - 104:4</p> <p><b>essentially</b> [1] - 72:15</p> <p><b>evidence</b> [31] - 8:17, 22:22, 24:2, 24:3, 25:6, 28:2, 41:16, 44:2, 44:4, 44:9, 45:7, 47:21, 54:12, 54:19, 65:5, 65:8, 65:16, 65:19, 68:20, 68:23, 68:24, 68:25, 69:1, 69:4, 69:6, 102:21, 103:13, 103:19, 103:23, 104:6, 104:12</p> <p><b>evidently</b> [1] - 78:2</p> <p><b>exact</b> [3] - 51:19, 58:5, 60:20</p> <p><b>exactly</b> [4] - 4:23, 8:4, 87:3, 94:6</p> <p><b>exaggerated</b> [2] - 14:2, 16:9</p> <p><b>exam</b> [1] - 25:2</p> <p><b>examiner</b> [9] - 56:4, 56:12, 56:13, 57:1, 57:5, 57:18, 58:12, 58:18, 58:24</p> <p><b>examiners</b> [2] - 55:15, 62:2</p> <p><b>example</b> [6] - 70:2, 91:2,</p>
<b>E</b>			
<p><b>early</b> [2] - 24:11, 94:19</p> <p><b>earth</b> [40] - 8:8, 8:16, 8:25, 9:2, 13:6, 13:10, 14:1, 18:14, 19:25, 20:15, 20:16, 21:25, 25:1, 25:21, 27:23, 27:25, 28:3, 28:5, 30:4, 31:8, 32:23, 33:2, 33:4, 33:14, 36:6, 36:7, 36:8, 36:10, 42:7, 42:11, 42:18, 42:22, 42:24, 43:22, 43:23, 44:3, 44:5, 52:4, 52:8</p> <p><b>easier</b> [3] - 3:8, 76:15, 76:19</p> <p><b>easiest</b> [1] - 98:7</p> <p><b>easily</b> [4] - 8:2, 25:13, 29:6, 31:1</p> <p><b>easy</b> [2] - 94:5, 94:19</p> <p><b>eccentric</b> [18] - 17:15, 17:17, 17:18, 17:22, 18:4, 18:6, 18:8, 18:13, 18:17, 19:6, 19:19, 55:11, 69:15, 69:19, 70:4, 76:10, 92:11</p> <p><b>eccentricity</b> [1] - 87:20</p> <p><b>edge</b> [10] - 16:3, 26:6, 26:9, 26:21, 41:25, 43:20, 51:19, 60:2, 60:12, 61:5</p> <p><b>edges</b> [1] - 42:1</p> <p><b>edited</b> [1] - 105:6</p> <p><b>eight</b> [1] - 79:22</p> <p><b>either</b> [6] - 5:16, 26:7, 26:11, 55:1, 86:23, 89:18</p>			



<p>96:9, 98:12, 99:8, 100:1  <b>except</b> [2] - 62:8, 68:12  <b>exchange</b> [1] - 54:16  <b>exclude</b> [4] - 29:2, 50:15, 50:17, 53:22  <b>excludes</b> [1] - 28:22  <b>exclusion</b> [5] - 25:14, 46:3, 47:18, 47:23, 54:5  <b>exclusive</b> [2] - 28:22, 29:2  <b>excuse</b> [3] - 5:12, 97:9, 99:25  <b>exit</b> [1] - 18:1  <b>expand</b> [2] - 14:21, 14:25  <b>experience</b> [3] - 9:22, 9:23, 105:23  <b>experiment</b> [2] - 65:7, 103:12  <b>expert</b> [7] - 23:16, 27:17, 32:19, 43:22, 44:1, 44:4  <b>experts</b> [2] - 24:2, 69:1  <b>explain</b> [4] - 7:24, 21:7, 69:22, 72:17  <b>explaining</b> [2] - 68:3, 71:2  <b>explains</b> [2] - 67:14, 73:2  <b>explanation</b> [1] - 78:7  <b>Exploration</b> [1] - 10:22  <b>exploration</b> [1] - 11:17  <b>express</b> [2] - 21:20, 53:23  <b>Expro</b> [1] - 70:3  <b>extend</b> [5] - 10:16, 59:19, 61:18, 62:7, 85:23  <b>extending</b> [13] - 41:5, 48:1, 49:5, 49:10, 50:1, 50:4, 50:7, 57:12, 58:3, 58:6, 61:7, 88:23, 92:6  <b>extends</b> [7] - 33:17, 48:4, 48:7, 62:6, 86:24, 87:1, 101:25  <b>extension</b> [1] - 11:16  <b>extent</b> [2] - 85:10, 86:10  <b>EXTREME</b> [1] - 1:4  <b>Extreme</b> [46] - 7:7, 7:11, 9:22, 9:25, 14:2, 16:14, 17:3, 17:14, 17:16, 18:6, 18:17, 21:22, 31:5, 33:1, 42:13, 49:8, 54:1, 55:10, 58:16, 58:22, 59:12, 59:13, 60:14, 65:19, 65:25, 66:5, 67:6, 71:17, 73:1, 80:17, 86:23, 87:7, 89:1, 90:1, 90:3, 90:7, 90:22, 91:12, 93:6, 96:18, 97:18, 97:23, 101:3, 102:2, 102:7, 103:5  <b>Extreme's</b> [71] - 7:10, 14:22, 19:19, 19:21, 20:13, 26:15, 26:18, 29:3, 29:7, 35:4, 36:9, 40:8, 40:12, 42:23, 50:21, 54:20, 55:3, 57:24, 59:8, 61:25, 63:10, 63:25, 64:15, 64:17, 64:24, 65:11,</p>	<p>66:15, 66:20, 68:3, 70:9, 70:10, 74:12, 75:17, 76:4, 76:9, 76:10, 77:3, 77:17, 78:2, 79:18, 80:20, 83:17, 85:20, 88:3, 88:5, 88:6, 88:15, 88:21, 89:4, 89:5, 89:8, 89:24, 90:14, 91:23, 95:9, 96:4, 96:16, 98:14, 98:20, 100:9, 100:14, 100:16, 101:7, 101:8, 102:12, 102:15, 102:19, 103:1, 103:21, 103:22  <b>extrinsic</b> [11] - 65:4, 65:8, 65:19, 68:24, 68:25, 69:6, 103:12, 103:19, 103:23, 104:6, 104:12</p>	<p>45:22, 49:8, 49:11, 50:5, 50:15, 52:15, 53:22, 55:20, 56:2, 56:3, 57:13, 58:19, 59:16, 60:5, 60:10, 70:24, 71:25, 72:25, 76:9, 77:6, 77:12, 77:17, 77:18, 78:14, 78:22, 79:3, 79:4, 79:12, 80:8, 80:10, 80:19, 80:20, 81:17, 82:5, 82:10, 82:11, 82:16, 83:6, 83:8, 83:18, 84:6, 84:7, 85:9, 91:3, 91:5, 91:6, 91:7, 91:9, 91:10, 91:12, 91:17, 91:19, 92:10, 92:15, 92:16, 92:22, 93:1, 95:9, 95:16, 95:25, 96:3, 98:4, 98:20, 99:5, 99:10, 99:24, 100:18  <b>Figure</b> [5] - 51:15, 83:16, 92:19, 99:24  <b>figures</b> [8] - 50:3, 51:14, 52:15, 79:8, 82:18, 84:22, 99:21, 99:25  <b>file</b> [9] - 9:13, 25:15, 44:17, 45:8, 54:13, 54:19, 59:10, 68:20, 104:25  <b>filed</b> [3] - 7:20, 23:7, 53:3  <b>fill</b> [1] - 72:10  <b>filling</b> [1] - 72:16  <b>final</b> [1] - 5:20  <b>finally</b> [3] - 9:11, 38:11, 67:4  <b>fine</b> [6] - 6:7, 6:10, 73:8, 88:2, 93:25, 105:21  <b>firm</b> [1] - 3:17  <b>first</b> [32] - 4:9, 7:11, 8:20, 16:21, 17:16, 21:24, 28:11, 55:6, 55:25, 57:15, 58:2, 58:4, 62:19, 74:24, 80:1, 81:1, 81:16, 84:23, 86:1, 86:2, 86:6, 86:7, 86:17, 86:24, 86:25, 88:10, 96:9, 99:9, 100:4, 102:16, 102:20, 103:12  <b>FISH</b> [1] - 1:20  <b>fit</b> [1] - 17:20  <b>five</b> [3] - 27:21, 47:17, 66:23  <b>fixed</b> [1] - 24:11  <b>fixing</b> [1] - 55:3  <b>flat</b> [73] - 10:23, 27:6, 28:12, 29:9, 29:12, 29:17, 33:6, 33:8, 38:2, 42:22, 43:3, 43:16, 50:6, 50:13, 50:18, 51:20, 51:25, 51:25, 52:3, 53:2, 53:11, 56:12, 56:15, 56:16, 56:18, 60:1, 60:7, 60:9, 60:15, 60:22, 60:23, 61:2, 61:3, 61:5, 61:14, 71:24, 72:4, 76:23, 79:1, 84:4, 84:5, 84:25, 95:7, 95:17, 96:10, 96:15, 96:16, 97:7, 97:10,</p>	<p>97:14, 97:20, 97:23, 97:25, 98:1, 98:5, 98:9, 98:13, 98:23, 99:2, 99:5, 99:8, 99:16, 99:20, 99:23, 100:2, 100:6, 101:10, 101:17, 102:3, 102:10  <b>flat-faced</b> [41] - 27:6, 28:12, 29:9, 29:12, 29:17, 38:2, 42:22, 50:6, 50:13, 50:18, 51:20, 51:25, 53:2, 53:11, 56:12, 56:15, 56:16, 56:18, 56:24, 59:20, 60:9, 60:15, 60:22, 60:23, 61:3, 61:14, 72:4, 96:15, 97:10, 97:20, 97:23, 97:25, 98:1, 98:23, 99:2, 99:5, 99:8, 101:10, 101:17, 102:3, 102:10  <b>flat-top</b> [1] - 61:2  <b>flip</b> [2] - 65:21  <b>floor</b> [2] - 9:14, 78:13  <b>fluorescent</b> [1] - 94:17  <b>flush</b> [7] - 59:21, 60:9, 60:23, 61:5, 61:14, 61:22  <b>flush-mounted</b> [4] - 59:21, 60:9, 60:23, 61:14  <b>focus</b> [6] - 58:17, 68:17, 68:22, 69:14, 99:14, 99:15  <b>focused</b> [1] - 64:1  <b>follow</b> [5] - 18:8, 18:16, 19:6, 28:15, 86:19  <b>followed</b> [1] - 20:25  <b>following</b> [4] - 18:12, 84:13, 84:14, 84:17  <b>follows</b> [3] - 85:19  <b>fooled</b> [1] - 53:1  <b>FOR</b> [2] - 1:13, 1:18  <b>force</b> [1] - 43:13  <b>forces</b> [1] - 19:9  <b>foregoing</b> [1] - 106:8  <b>forgot</b> [1] - 83:2  <b>forgotten</b> [1] - 62:23  <b>form</b> [14] - 24:12, 45:12, 47:16, 47:19, 77:21, 77:23, 77:24, 80:11, 80:12, 80:13, 80:14, 83:13, 96:14  <b>formation</b> [18] - 13:9, 19:1, 32:8, 67:12, 72:1, 72:5, 72:7, 72:10, 72:12, 72:17, 73:21, 84:1, 84:2, 85:5, 86:5, 97:14, 97:16, 100:6  <b>formed</b> [17] - 66:16, 66:21, 75:23, 77:15, 77:25, 78:8, 79:5, 81:10, 87:24, 87:25, 88:13, 88:17, 89:9, 89:22, 90:5, 91:2, 93:5  <b>forming</b> [1] - 79:11  <b>forms</b> [1] - 78:23  <b>forth</b> [7] - 5:7, 5:18, 5:19, 49:18, 54:16, 63:18  <b>four</b> [13] - 16:25, 45:11,</p>
<b>F</b>			
<p><b>face</b> [6] - 43:3, 43:4, 43:16, 99:16, 99:20, 100:6  <b>faced</b> [41] - 27:6, 28:12, 29:9, 29:12, 29:17, 38:2, 42:22, 50:6, 50:13, 50:18, 51:20, 51:25, 53:2, 53:11, 56:12, 56:15, 56:16, 56:18, 56:24, 59:20, 60:9, 60:15, 60:22, 60:23, 61:3, 61:14, 72:4, 96:15, 97:10, 97:20, 97:23, 97:25, 98:1, 98:23, 99:2, 99:5, 99:8, 101:10, 101:17, 102:3, 102:10  <b>faces</b> [2] - 57:10, 95:17  <b>facing</b> [9] - 71:24, 95:12, 95:18, 96:6, 96:10, 97:12, 97:15, 99:17, 100:20  <b>fact</b> [4] - 53:18, 66:25, 88:18, 88:21  <b>fail</b> [1] - 73:21  <b>faint</b> [1] - 3:7  <b>fall</b> [2] - 18:10, 78:13  <b>familiar</b> [1] - 9:21  <b>family</b> [1] - 24:8  <b>far</b> [4] - 31:12, 52:16, 67:5, 83:12  <b>fashioned</b> [2] - 4:14, 73:7  <b>fast</b> [5] - 12:5, 12:8, 13:12, 23:17, 94:12  <b>faster</b> [2] - 27:20, 30:16  <b>FAX</b> [2] - 1:16, 1:22  <b>feature</b> [1] - 54:4  <b>features</b> [1] - 56:8  <b>federal</b> [1] - 29:20  <b>Federal</b> [6] - 20:23, 65:1, 68:7, 68:13, 89:13, 103:4  <b>feet</b> [5] - 12:23, 14:20, 16:22, 16:25  <b>few</b> [2] - 63:9  <b>field</b> [1] - 9:23  <b>figure</b> [78] - 15:20, 16:12,</p>			

<p>47:16, 47:17, 54:11, 76:11, 77:6, 77:21, 79:11, 81:24, 83:13, 85:16, 92:17</p> <p><b>fourth</b> [3] - 3:17, 76:24, 86:4</p> <p><b>fourth-year</b> [1] - 3:17</p> <p><b>Fox</b> [1] - 34:19</p> <p><b>frac</b> [1] - 14:17</p> <p><b>fragile</b> [1] - 8:10</p> <p><b>FROM</b> [1] - 1:25</p> <p><b>front</b> [2] - 12:12, 63:9</p> <p><b>full</b> [3] - 32:15, 86:14</p> <p><b>fully</b> [1] - 81:10</p> <p><b>fun</b> [1] - 94:9</p> <p><b>function</b> [8] - 39:14, 39:16, 64:13, 103:6, 103:7, 104:13, 104:14</p> <p><b>functions</b> [2] - 53:14, 97:17</p> <p><b>fundamental</b> [1] - 28:6</p>	<p><b>halfway</b> [1] - 51:22</p> <p><b>hammer</b> [6] - 43:1, 51:21, 65:6, 103:15, 103:17</p> <p><b>hammers</b> [2] - 103:17</p> <p><b>hand</b> [17] - 24:10, 24:24, 48:13, 49:15, 51:16, 58:25, 60:5, 60:8, 83:24, 84:10, 84:12, 84:17, 84:21, 95:20, 99:11, 99:12</p> <p><b>handing</b> [1] - 62:19</p> <p><b>handled</b> [1] - 41:15</p> <p><b>happy</b> [2] - 6:2, 62:14</p> <p><b>hard</b> [9] - 14:17, 21:9, 22:12, 25:8, 43:11, 43:12, 43:21, 91:21, 94:2</p> <p><b>harder</b> [3] - 26:7, 52:7, 60:3</p> <p><b>hardest</b> [3] - 8:15, 42:17, 94:12</p> <p><b>Harris</b> [1] - 68:10</p> <p><b>harsh</b> [1] - 31:10</p> <p><b>harshly</b> [1] - 28:21</p> <p><b>head</b> [1] - 24:11</p> <p><b>hear</b> [2] - 63:20, 78:4</p> <p><b>heard</b> [2] - 72:8, 89:3</p> <p><b>hearing</b> [7] - 3:18, 7:9, 21:24, 23:13, 63:23, 63:25, 67:17</p> <p><b>HEARING</b> [1] - 1:11</p> <p><b>heavy</b> [3] - 20:24, 21:4, 23:5</p> <p><b>height</b> [2] - 53:2, 53:10</p> <p><b>held</b> [2] - 25:4, 68:13</p> <p><b>help</b> [4] - 3:15, 4:5, 4:6, 12:15</p> <p><b>helped</b> [1] - 3:25</p> <p><b>helping</b> [1] - 3:21</p> <p><b>helps</b> [3] - 10:17, 19:23, 86:4</p> <p><b>high</b> [4] - 71:1, 94:11, 102:19, 103:11</p> <p><b>highest</b> [2] - 102:20, 102:23</p> <p><b>highlight</b> [7] - 14:22, 51:4, 66:18, 83:20, 85:13, 85:14, 85:15</p> <p><b>highlighted</b> [13] - 65:10, 78:21, 80:23, 82:6, 83:9, 92:1, 96:9, 98:7, 98:9, 98:11, 99:22, 101:10, 101:17</p> <p><b>highlighting</b> [1] - 99:16</p> <p><b>highly</b> [1] - 68:14</p> <p><b>historically</b> [1] - 71:10</p> <p><b>history</b> [21] - 9:13, 25:15, 44:17, 45:8, 54:13, 54:19, 54:23, 54:25, 55:4, 59:10, 64:22, 65:3, 65:23, 68:21, 89:18, 90:4, 90:7, 90:14, 93:9, 93:12, 103:21</p> <p><b>hit</b> [4] - 43:10, 43:11, 80:1, 80:2</p> <p><b>hits</b> [2] - 22:11, 52:4</p> <p><b>hitting</b> [3] - 13:9, 13:10, 27:23</p>	<p><b>hoist</b> [1] - 13:4</p> <p><b>hold</b> [1] - 105:19</p> <p><b>holding</b> [2] - 87:20, 91:16</p> <p><b>hole</b> [51] - 8:8, 8:16, 9:1, 9:2, 10:3, 10:4, 10:8, 10:9, 10:14, 11:24, 12:5, 12:21, 13:6, 14:6, 14:16, 15:1, 15:6, 15:12, 15:18, 15:21, 16:22, 16:24, 18:10, 18:11, 19:3, 19:24, 19:25, 20:15, 20:17, 22:1, 27:19, 28:1, 31:9, 32:14, 32:18, 33:5, 36:15, 42:8, 42:12, 42:18, 43:9, 43:20, 51:12, 60:18, 61:4, 95:14, 100:22, 103:13</p> <p><b>hole's</b> [1] - 15:12</p> <p><b>holes</b> [1] - 36:12</p> <p><b>home</b> [1] - 13:20</p> <p><b>Honor</b> [134] - 3:10, 3:16, 4:6, 4:18, 5:5, 5:12, 6:2, 6:15, 6:22, 7:1, 7:5, 7:16, 8:11, 9:17, 9:19, 13:1, 13:14, 15:8, 16:7, 16:13, 17:18, 19:14, 19:17, 20:1, 20:8, 21:1, 22:2, 22:23, 23:8, 23:18, 24:4, 25:24, 30:7, 30:11, 30:18, 31:4, 31:17, 32:1, 32:20, 33:15, 33:20, 34:5, 35:3, 35:13, 35:14, 35:15, 36:1, 36:13, 36:16, 37:3, 37:7, 38:23, 39:2, 39:23, 43:2, 43:6, 44:10, 44:15, 44:20, 44:21, 44:25, 48:17, 49:7, 51:13, 54:13, 54:15, 62:10, 63:3, 63:17, 64:8, 64:12, 65:6, 65:12, 66:22, 67:18, 67:22, 68:1, 72:22, 73:15, 73:17, 74:5, 74:14, 74:17, 75:9, 75:14, 75:25, 76:3, 76:12, 77:2, 78:17, 79:17, 80:5, 80:15, 81:19, 81:24, 82:4, 82:14, 83:2, 83:21, 85:3, 85:7, 85:25, 86:17, 87:5, 87:15, 87:23, 88:10, 88:15, 88:25, 89:2, 89:3, 89:21, 90:6, 91:5, 91:17, 91:21, 92:9, 93:4, 93:8, 94:1, 94:8, 95:4, 96:25, 97:8, 98:18, 102:14, 102:18, 103:9, 103:18, 104:6, 104:16, 104:23, 104:24</p> <p><b>HONORABLE</b> [1] - 1:10</p> <p><b>hopefully</b> [1] - 85:22</p> <p><b>HOUSTON</b> [1] - 1:3</p> <p><b>Houston</b> [5] - 1:7, 1:15, 1:21, 2:3, 50:22</p> <p><b>Howard</b> [1] - 24:8</p> <p><b>Hughes</b> [1] - 69:20</p>	<p><b>HUGHES</b> [1] - 1:10</p> <p><b>Hughes'</b> [1] - 24:8</p> <p><b>hundred</b> [1] - 14:19</p> <p><b>Hyne's</b> [2] - 10:21, 11:17</p>
<b>G</b>			
<p><b>gamesmanship</b> [1] - 29:14</p> <p><b>gas</b> [1] - 32:13</p> <p><b>gauge</b> [5] - 10:9, 14:6, 15:2, 32:15, 86:14</p> <p><b>Gayle</b> [1] - 106:13</p> <p><b>GAYLE</b> [1] - 2:2</p> <p><b>generally</b> [10] - 21:2, 38:12, 70:5, 70:14, 70:23, 71:24, 93:3, 95:12, 96:6, 100:20</p> <p><b>generations</b> [3] - 24:7, 32:5, 42:24</p> <p><b>geographic</b> [1] - 38:4</p> <p><b>geographical</b> [1] - 27:13</p> <p><b>geometric</b> [3] - 33:23, 34:1, 39:10</p> <p><b>geometrical</b> [1] - 9:4</p> <p><b>geometry</b> [2] - 96:23, 97:13</p> <p><b>given</b> [4] - 7:12, 21:2, 21:5, 44:7</p> <p><b>gouge</b> [3] - 51:8, 51:12, 53:8</p> <p><b>government</b> [2] - 12:15, 64:18</p> <p><b>graph</b> [1] - 54:13</p> <p><b>gray</b> [1] - 72:2</p> <p><b>great</b> [5] - 3:12, 38:18, 63:3, 75:6, 94:3</p> <p><b>greater</b> [2] - 85:24, 87:1</p> <p><b>green</b> [8] - 48:3, 52:10, 52:18, 52:21, 96:12, 98:8, 101:10, 101:18</p> <p><b>guaranteed</b> [1] - 19:5</p> <p><b>guess</b> [2] - 35:6, 103:17</p> <p><b>guide</b> [2] - 65:2, 68:16</p> <p><b>guys</b> [1] - 6:8</p>			
<b>H</b>			
<p><b>H-19-CV-1977</b> [1] - 1:6</p> <p><b>half</b> [2] - 101:12, 101:14</p>			<p><b>identified</b> [4] - 57:7, 58:8, 99:5, 101:11</p> <p><b>identifies</b> [2] - 57:7, 102:8</p> <p><b>identifying</b> [1] - 102:4</p> <p><b>ignoring</b> [1] - 29:24</p> <p><b>illustrate</b> [2] - 48:9, 82:19</p> <p><b>illustrated</b> [3] - 48:2, 50:3, 61:11</p> <p><b>illustrates</b> [4] - 77:6, 81:18, 81:21, 92:10</p> <p><b>illustrating</b> [1] - 47:3</p> <p><b>imagine</b> [3] - 13:7, 43:5, 43:8</p> <p><b>immediately</b> [1] - 94:15</p> <p><b>impact</b> [1] - 85:5</p> <p><b>impacting</b> [1] - 84:1</p> <p><b>impermissibly</b> [1] - 88:16</p> <p><b>implement</b> [1] - 42:6</p> <p><b>implication</b> [1] - 41:11</p> <p><b>import</b> [4] - 39:12, 40:23, 45:19, 73:14</p> <p><b>importance</b> [1] - 3:20</p> <p><b>important</b> [13] - 9:10, 12:25, 23:8, 23:19, 25:24, 33:21, 58:18, 65:1, 85:16, 86:16, 86:17, 87:11, 92:12</p> <p><b>improper</b> [3] - 45:17, 69:5, 103:19</p> <p><b>Inc</b> [1] - 50:23</p> <p><b>inch</b> [3] - 86:8, 86:15</p> <p><b>inches</b> [1] - 86:11</p> <p><b>include</b> [4] - 54:4, 58:23, 58:25, 105:2</p> <p><b>included</b> [1] - 100:25</p> <p><b>includes</b> [1] - 57:6</p> <p><b>including</b> [4] - 26:2, 37:19, 41:14, 68:18</p> <p><b>incorporate</b> [1] - 38:5</p> <p><b>indeed</b> [2] - 29:21, 33:8</p> <p><b>independent</b> [22] - 26:18, 26:20, 26:22, 27:12, 33:15, 33:20, 33:22, 37:2, 37:10, 37:11, 37:16, 37:17, 37:21, 38:3, 38:14, 39:6, 39:9, 40:15, 40:21, 46:17, 50:1, 62:9</p> <p><b>independents</b> [1] - 38:25</p> <p><b>indicate</b> [1] - 89:18</p> <p><b>indicated</b> [2] - 89:16, 95:25</p> <p><b>indicating</b> [6] - 15:16, 15:17, 43:10, 43:12, 52:4, 97:7</p> <p><b>indicating)</b> [1] - 68:11</p> <p><b>individual</b> [1] - 82:25</p> <p><b>individually</b> [1] - 84:19</p>

<p><b>indulge</b> [1] - 23:5</p> <p><b>indulgence</b> [1] - 94:1</p> <p><b>industry</b> [4] - 17:11, 32:13, 66:11, 71:11</p> <p><b>infringe</b> [5] - 9:6, 25:19, 31:15, 33:10, 39:17</p> <p><b>infringement</b> [4] - 7:8, 40:1, 64:1, 71:4</p> <p><b>infringes</b> [1] - 63:24</p> <p><b>insert</b> [12] - 26:3, 32:7, 32:9, 35:1, 49:17, 56:12, 56:15, 56:25, 59:9, 60:9, 60:16</p> <p><b>inserts</b> [59] - 8:7, 8:15, 10:23, 11:1, 11:2, 11:4, 21:25, 23:14, 24:6, 24:13, 24:16, 24:19, 24:22, 24:25, 26:23, 27:22, 27:23, 27:25, 28:19, 28:24, 29:9, 30:4, 32:4, 32:9, 32:11, 34:25, 36:10, 36:17, 42:22, 42:24, 49:13, 51:20, 52:23, 56:16, 58:25, 59:2, 59:13, 59:18, 59:19, 59:20, 59:21, 59:23, 59:24, 60:1, 60:22, 60:23, 61:3, 61:4, 61:7, 61:10, 61:13, 61:14, 61:18, 61:22, 66:11, 66:12, 70:21, 95:7</p> <p><b>inside</b> [1] - 18:1</p> <p><b>instant</b> [1] - 23:1</p> <p><b>instead</b> [3] - 47:18, 61:2, 70:23</p> <p><b>intended</b> [4] - 46:7, 54:9, 72:6</p> <p><b>intent</b> [4] - 46:2, 46:6, 46:7, 47:7</p> <p><b>intention</b> [1] - 28:9</p> <p><b>interested</b> [1] - 73:25</p> <p><b>interesting</b> [3] - 10:11, 52:9, 61:1</p> <p><b>international</b> [2] - 50:23, 60:24</p> <p><b>interpret</b> [8] - 53:20, 65:2, 65:21, 65:22, 78:3, 78:5, 104:7</p> <p><b>interpretation</b> [2] - 50:12, 55:1</p> <p><b>intrinsic</b> [10] - 45:7, 54:12, 68:19, 68:25, 69:3, 69:7, 102:21, 103:20</p> <p><b>introduce</b> [4] - 5:8, 5:11, 5:13, 5:14</p> <p><b>introduction</b> [4] - 4:19, 4:20, 4:21</p> <p><b>invent</b> [1] - 17:14</p> <p><b>invented</b> [1] - 35:4</p> <p><b>invention</b> [8] - 16:14, 17:17, 28:7, 41:12, 54:4, 64:20, 89:15, 89:19</p> <p><b>inventive</b> [1] - 19:11</p> <p><b>inventor</b> [5] - 21:20, 46:4,</p>	<p>46:7, 54:8, 89:14</p> <p><b>inventor's</b> [2] - 47:6, 54:17</p> <p><b>inventors</b> [6] - 29:3, 46:2, 47:18, 47:22, 53:5, 54:1</p> <p><b>issue</b> [24] - 4:22, 7:21, 20:4, 23:2, 24:20, 40:25, 64:1, 64:2, 64:14, 65:10, 65:14, 65:15, 66:4, 66:9, 67:2, 67:15, 69:14, 85:12, 88:21, 93:7, 100:10, 102:20</p> <p><b>issues</b> [3] - 23:1, 54:18, 90:1</p> <p><b>itself</b> [3] - 18:3, 60:13, 64:21</p>	<p><b>Knutsen</b> [1] - 61:15</p>	<p><b>lift</b> [1] - 13:3</p> <p><b>lifted</b> [1] - 20:2</p> <p><b>light</b> [2] - 9:12, 22:22</p> <p><b>lights</b> [1] - 94:17</p> <p><b>limit</b> [13] - 28:16, 28:20, 28:25, 29:12, 39:25, 40:2, 45:22, 46:2, 46:6, 46:8, 49:19, 89:3, 89:15</p> <p><b>limitation</b> [7] - 21:12, 21:20, 29:18, 37:9, 37:12, 86:22, 103:7</p> <p><b>limitations</b> [2] - 37:15, 45:19</p> <p><b>limited</b> [1] - 49:19</p> <p><b>limiting</b> [2] - 21:19, 54:23</p> <p><b>limits</b> [2] - 90:4</p> <p><b>line</b> [13] - 6:14, 15:25, 51:18, 61:10, 61:21, 81:10, 81:11, 81:12, 86:8, 98:22, 98:23, 98:25, 99:3</p> <p><b>lined</b> [3] - 70:15, 80:25, 81:4</p> <p><b>lines</b> [4] - 46:22, 77:5, 95:10, 98:24</p> <p><b>lingo</b> [1] - 46:6</p> <p><b>lining</b> [1] - 81:13</p> <p><b>link</b> [2] - 39:25, 40:1</p> <p><b>list</b> [3] - 101:9, 101:11, 101:16</p> <p><b>lists</b> [1] - 41:10</p> <p><b>literature</b> [8] - 23:15, 24:2, 24:21, 24:22, 30:2, 32:6, 36:21, 43:22</p> <p><b>LLC</b> [4] - 1:4, 1:7, 7:7, 7:8</p> <p><b>LLP</b> [1] - 1:14</p> <p><b>location</b> [2] - 82:19, 87:12</p> <p><b>longitudinal</b> [26] - 27:12, 28:23, 38:6, 38:7, 38:9, 38:11, 38:12, 39:8, 39:12, 39:18, 39:25, 40:3, 40:5, 40:23, 53:16, 53:17, 53:21, 53:24, 57:11, 69:24, 70:13, 71:6, 71:12, 77:14, 83:9, 83:14</p> <p><b>longitudinal's</b> [1] - 39:14</p> <p><b>longitudinally</b> [23] - 31:11, 40:9, 70:5, 70:14, 76:2, 76:5, 79:20, 79:21, 79:23, 83:5, 83:22, 84:24, 85:7, 86:18, 86:20, 87:5, 89:10, 89:23, 90:17, 93:16, 101:22, 101:24, 102:11</p> <p><b>look</b> [80] - 7:16, 8:22, 10:18, 11:7, 11:13, 12:4, 12:6, 15:8, 15:15, 15:17, 15:20, 16:7, 16:13, 22:2, 24:17, 26:12, 30:7, 30:23, 31:17, 32:20, 33:3, 33:15, 34:7, 34:13, 35:3, 35:13, 40:4, 40:16, 41:1, 42:20, 42:25, 46:9, 46:19, 47:20, 48:17, 49:7, 49:11, 49:12, 49:15,</p>
<p><b>indulge</b> [1] - 23:5</p> <p><b>indulgence</b> [1] - 94:1</p> <p><b>industry</b> [4] - 17:11, 32:13, 66:11, 71:11</p> <p><b>infringe</b> [5] - 9:6, 25:19, 31:15, 33:10, 39:17</p> <p><b>infringement</b> [4] - 7:8, 40:1, 64:1, 71:4</p> <p><b>infringes</b> [1] - 63:24</p> <p><b>insert</b> [12] - 26:3, 32:7, 32:9, 35:1, 49:17, 56:12, 56:15, 56:25, 59:9, 60:9, 60:16</p> <p><b>inserts</b> [59] - 8:7, 8:15, 10:23, 11:1, 11:2, 11:4, 21:25, 23:14, 24:6, 24:13, 24:16, 24:19, 24:22, 24:25, 26:23, 27:22, 27:23, 27:25, 28:19, 28:24, 29:9, 30:4, 32:4, 32:9, 32:11, 34:25, 36:10, 36:17, 42:22, 42:24, 49:13, 51:20, 52:23, 56:16, 58:25, 59:2, 59:13, 59:18, 59:19, 59:20, 59:21, 59:23, 59:24, 60:1, 60:22, 60:23, 61:3, 61:4, 61:7, 61:10, 61:13, 61:14, 61:18, 61:22, 66:11, 66:12, 70:21, 95:7</p> <p><b>inside</b> [1] - 18:1</p> <p><b>instant</b> [1] - 23:1</p> <p><b>instead</b> [3] - 47:18, 61:2, 70:23</p> <p><b>intended</b> [4] - 46:7, 54:9, 72:6</p> <p><b>intent</b> [4] - 46:2, 46:6, 46:7, 47:7</p> <p><b>intention</b> [1] - 28:9</p> <p><b>interested</b> [1] - 73:25</p> <p><b>interesting</b> [3] - 10:11, 52:9, 61:1</p> <p><b>international</b> [2] - 50:23, 60:24</p> <p><b>interpret</b> [8] - 53:20, 65:2, 65:21, 65:22, 78:3, 78:5, 104:7</p> <p><b>interpretation</b> [2] - 50:12, 55:1</p> <p><b>intrinsic</b> [10] - 45:7, 54:12, 68:19, 68:25, 69:3, 69:7, 102:21, 103:20</p> <p><b>introduce</b> [4] - 5:8, 5:11, 5:13, 5:14</p> <p><b>introduction</b> [4] - 4:19, 4:20, 4:21</p> <p><b>invent</b> [1] - 17:14</p> <p><b>invented</b> [1] - 35:4</p> <p><b>invention</b> [8] - 16:14, 17:17, 28:7, 41:12, 54:4, 64:20, 89:15, 89:19</p> <p><b>inventive</b> [1] - 19:11</p> <p><b>inventor</b> [5] - 21:20, 46:4,</p>	<p>46:7, 54:8, 89:14</p> <p><b>inventor's</b> [2] - 47:6, 54:17</p> <p><b>inventors</b> [6] - 29:3, 46:2, 47:18, 47:22, 53:5, 54:1</p> <p><b>issue</b> [24] - 4:22, 7:21, 20:4, 23:2, 24:20, 40:25, 64:1, 64:2, 64:14, 65:10, 65:14, 65:15, 66:4, 66:9, 67:2, 67:15, 69:14, 85:12, 88:21, 93:7, 100:10, 102:20</p> <p><b>issues</b> [3] - 23:1, 54:18, 90:1</p> <p><b>itself</b> [3] - 18:3, 60:13, 64:21</p>	<p><b>Knutsen</b> [1] - 61:15</p>	<p><b>lift</b> [1] - 13:3</p> <p><b>lifted</b> [1] - 20:2</p> <p><b>light</b> [2] - 9:12, 22:22</p> <p><b>lights</b> [1] - 94:17</p> <p><b>limit</b> [13] - 28:16, 28:20, 28:25, 29:12, 39:25, 40:2, 45:22, 46:2, 46:6, 46:8, 49:19, 89:3, 89:15</p> <p><b>limitation</b> [7] - 21:12, 21:20, 29:18, 37:9, 37:12, 86:22, 103:7</p> <p><b>limitations</b> [2] - 37:15, 45:19</p> <p><b>limited</b> [1] - 49:19</p> <p><b>limiting</b> [2] - 21:19, 54:23</p> <p><b>limits</b> [2] - 90:4</p> <p><b>line</b> [13] - 6:14, 15:25, 51:18, 61:10, 61:21, 81:10, 81:11, 81:12, 86:8, 98:22, 98:23, 98:25, 99:3</p> <p><b>lined</b> [3] - 70:15, 80:25, 81:4</p> <p><b>lines</b> [4] - 46:22, 77:5, 95:10, 98:24</p> <p><b>lingo</b> [1] - 46:6</p> <p><b>lining</b> [1] - 81:13</p> <p><b>link</b> [2] - 39:25, 40:1</p> <p><b>list</b> [3] - 101:9, 101:11, 101:16</p> <p><b>lists</b> [1] - 41:10</p> <p><b>literature</b> [8] - 23:15, 24:2, 24:21, 24:22, 30:2, 32:6, 36:21, 43:22</p> <p><b>LLC</b> [4] - 1:4, 1:7, 7:7, 7:8</p> <p><b>LLP</b> [1] - 1:14</p> <p><b>location</b> [2] - 82:19, 87:12</p> <p><b>longitudinal</b> [26] - 27:12, 28:23, 38:6, 38:7, 38:9, 38:11, 38:12, 39:8, 39:12, 39:18, 39:25, 40:3, 40:5, 40:23, 53:16, 53:17, 53:21, 53:24, 57:11, 69:24, 70:13, 71:6, 71:12, 77:14, 83:9, 83:14</p> <p><b>longitudinal's</b> [1] - 39:14</p> <p><b>longitudinally</b> [23] - 31:11, 40:9, 70:5, 70:14, 76:2, 76:5, 79:20, 79:21, 79:23, 83:5, 83:22, 84:24, 85:7, 86:18, 86:20, 87:5, 89:10, 89:23, 90:17, 93:16, 101:22, 101:24, 102:11</p> <p><b>look</b> [80] - 7:16, 8:22, 10:18, 11:7, 11:13, 12:4, 12:6, 15:8, 15:15, 15:17, 15:20, 16:7, 16:13, 22:2, 24:17, 26:12, 30:7, 30:23, 31:17, 32:20, 33:3, 33:15, 34:7, 34:13, 35:3, 35:13, 40:4, 40:16, 41:1, 42:20, 42:25, 46:9, 46:19, 47:20, 48:17, 49:7, 49:11, 49:12, 49:15,</p>
<p><b>indulge</b> [1] - 23:5</p> <p><b>indulgence</b> [1] - 94:1</p> <p><b>industry</b> [4] - 17:11, 32:13, 66:11, 71:11</p> <p><b>infringe</b> [5] - 9:6, 25:19, 31:15, 33:10, 39:17</p> <p><b>infringement</b> [4] - 7:8, 40:1, 64:1, 71:4</p> <p><b>infringes</b> [1] - 63:24</p> <p><b>insert</b> [12] - 26:3, 32:7, 32:9, 35:1, 49:17, 56:12, 56:15, 56:25, 59:9, 60:9, 60:16</p> <p><b>inserts</b> [59] - 8:7, 8:15, 10:23, 11:1, 11:2, 11:4, 21:25, 23:14, 24:6, 24:13, 24:16, 24:19, 24:22, 24:25, 26:23, 27:22, 27:23, 27:25, 28:19, 28:24, 29:9, 30:4, 32:4, 32:9, 32:11, 34:25, 36:10, 36:17, 42:22, 42:24, 49:13, 51:20, 52:23, 56:16, 58:25, 59:2, 59:13, 59:18, 59:19, 59:20, 59:21, 59:23, 59:24, 60:1, 60:22, 60:23, 61:3, 61:4, 61:7, 61:10, 61:13, 61:14, 61:18, 61:22, 66:11, 66:12, 70:21, 95:7</p> <p><b>inside</b> [1] - 18:1</p> <p><b>instant</b> [1] - 23:1</p> <p><b>instead</b> [3] - 47:18, 61:2, 70:23</p> <p><b>intended</b> [4] - 46:7, 54:9, 72:6</p> <p><b>intent</b> [4] - 46:2, 46:6, 46:7, 47:7</p> <p><b>intention</b> [1] - 28:9</p> <p><b>interested</b> [1] - 73:25</p> <p><b>interesting</b> [3] - 10:11, 52:9, 61:1</p> <p><b>international</b> [2] - 50:23, 60:24</p> <p><b>interpret</b> [8] - 53:20, 65:2, 65:21, 65:22, 78:3, 78:5, 104:7</p> <p><b>interpretation</b> [2] - 50:12, 55:1</p> <p><b>intrinsic</b> [10] - 45:7, 54:12, 68:19, 68:25, 69:3, 69:7, 102:21, 103:20</p> <p><b>introduce</b> [4] - 5:8, 5:11, 5:13, 5:14</p> <p><b>introduction</b> [4] - 4:19, 4:20, 4:21</p> <p><b>invent</b> [1] - 17:14</p> <p><b>invented</b> [1] - 35:4</p> <p><b>invention</b> [8] - 16:14, 17:17, 28:7, 41:12, 54:4, 64:20, 89:15, 89:19</p> <p><b>inventive</b> [1] - 19:11</p> <p><b>inventor</b> [5] - 21:20, 46:4,</p>	<p>46:7, 54:8, 89:14</p> <p><b>inventor's</b> [2] - 47:6, 54:17</p> <p><b>inventors</b> [6] - 29:3, 46:2, 47:18, 47:22, 53:5, 54:1</p> <p><b>issue</b> [24] - 4:22, 7:21, 20:4, 23:2, 24:20, 40:25, 64:1, 64:2, 64:14, 65:10, 65:14, 65:15, 66:4, 66:9, 67:2, 67:15, 69:14, 85:12, 88:21, 93:7, 100:10, 102:20</p> <p><b>issues</b> [3] - 23:1, 54:18, 90:1</p> <p><b>itself</b> [3] - 18:3, 60:13, 64:21</p>	<p><b>Knutsen</b> [1] - 61:15</p>	<p><b>lift</b> [1] - 13:3</p> <p><b>lifted</b> [1] - 20:2</p> <p><b>light</b> [2] - 9:12, 22:22</p> <p><b>lights</b> [1] - 94:17</p> <p><b>limit</b> [13] - 28:16, 28:20, 28:25, 29:12, 39:25, 40:2, 45:22, 46:2, 46:6, 46:8, 49:19, 89:3, 89:15</p> <p><b>limitation</b> [7] - 21:12, 21:20, 29:18, 37:9, 37:12, 86:22, 103:7</p> <p><b>limitations</b> [2] - 37:15, 45:19</p> <p><b>limited</b> [1] - 49:19</p> <p><b>limiting</b> [2] - 21:19, 54:23</p> <p><b>limits</b> [2] - 90:4</p> <p><b>line</b> [13] - 6:14, 15:25, 51:18, 61:10, 61:21, 81:10, 81:11, 81:12, 86:8, 98:22, 98:23, 98:25, 99:3</p> <p><b>lined</b> [3] - 70:15, 80:25, 81:4</p> <p><b>lines</b> [4] - 46:22, 77:5, 95:10, 98:24</p> <p><b>lingo</b> [1] - 46:6</p> <p><b>lining</b> [1] - 81:13</p> <p><b>link</b> [2] - 39:25, 40:1</p> <p><b>list</b> [3] - 101:9, 101:11, 101:16</p> <p><b>lists</b> [1] - 41:10</p> <p><b>literature</b> [8] - 23:15, 24:2, 24:21, 24:22, 30:2, 32:6, 36:21, 43:22</p> <p><b>LLC</b> [4] - 1:4, 1:7, 7:7, 7:8</p> <p><b>LLP</b> [1] - 1:14</p> <p><b>location</b> [2] - 82:19, 87:12</p> <p><b>longitudinal</b> [26] - 27:12, 28:23, 38:6, 38:7, 38:9, 38:11, 38:12, 39:8, 39:12, 39:18, 39:25, 40:3, 40:5, 40:23, 53:16, 53:17, 53:21, 53:24, 57:11, 69:24, 70:13, 71:6, 71:12, 77:14, 83:9, 83:14</p> <p><b>longitudinal's</b> [1] - 39:14</p> <p><b>longitudinally</b> [23] - 31:11, 40:9, 70:5, 70:14, 76:2, 76:5, 79:20, 79:21, 79:23, 83:5, 83:22, 84:24, 85:7, 86:18, 86:20, 87:5, 89:10, 89:23, 90:17, 93:16, 101:22, 101:24, 102:11</p> <p><b>look</b> [80] - 7:16, 8:22, 10:18, 11:7, 11:13, 12:4, 12:6, 15:8, 15:15, 15:17, 15:20, 16:7, 16:13, 22:2, 24:17, 26:12, 30:7, 30:23, 31:17, 32:20, 33:3, 33:15, 34:7, 34:13, 35:3, 35:13, 40:4, 40:16, 41:1, 42:20, 42:25, 46:9, 46:19, 47:20, 48:17, 49:7, 49:11, 49:12, 49:15,</p>
<p><b>indulge</b> [1] - 23:5</p> <p><b>indulgence</b> [1] - 94:1</p> <p><b>industry</b> [4] - 17:11, 32:13, 66:11, 71:11</p> <p><b>infringe</b> [5] - 9:6, 25:19, 31:15, 33:10, 39:17</p> <p><b>infringement</b> [4] - 7:8, 40:1, 64:1, 71:4</p> <p><b>infringes</b> [1] - 63:24</p> <p><b>insert</b> [12] - 26:3, 32:7, 32:9, 35:1, 49:17, 56:12, 56:15, 56:25, 59:9, 60:9, 60:16</p> <p><b>inserts</b> [59] - 8:7, 8:15, 10:23, 11:1, 11:2, 11:4, 21:25, 23:14, 24:6, 24:13, 24:16, 24:19, 24:22, 24:25, 26:23, 27:22, 27:23, 27:25, 28:19, 28:24, 29:9, 30:4, 32:4, 32:9, 32:11, 34:25, 36:10, 36:17, 42:22, 42:24, 49:13, 51:20, 52:23, 56:16, 58:25, 59:2, 59:13, 59:18, 59:19, 59:20, 59:21, 59:23, 59:24, 60:1, 60:22, 60:23, 61:3, 61:4, 61:7, 61:10, 61:13, 61:14, 61:18, 61:22, 66:11, 66:12, 70:21, 95:7</p> <p><b>inside</b> [1] - 18:1</p> <p><b>instant</b> [1] - 23:1</p> <p><b>instead</b> [3] - 47:18, 61:2, 70:23</p> <p><b>intended</b> [4] - 46:7, 54:9, 72:6</p> <p><b>intent</b> [4] - 46:2, 46:6, 46:7, 47:7</p> <p><b>intention</b> [1] - 28:9</p> <p><b>interested</b> [1] - 73:25</p> <p><b>interesting</b> [3] - 10:11, 52:9, 61:1</p> <p><b>international</b> [2] - 50:23, 60:24</p> <p><b>interpret</b> [8] - 53:20, 65:2, 65:21, 65:22, 78:3, 78:5, 104:7</p> <p><b>interpretation</b> [2] - 50:12, 55:1</p> <p><b>intrinsic</b> [10] - 45:7, 54:12, 68:19, 68:25, 69:3, 69:7, 102:21, 103:20</p> <p><b>introduce</b> [4] - 5:8, 5:11, 5:13, 5:14</p> <p><b>introduction</b> [4] - 4:19, 4:20, 4:21</p> <p><b>invent</b> [1] - 17:14</p> <p><b>invented</b> [1] - 35:4</p> <p><b>invention</b> [8] - 16:14, 17:17, 28:7, 41:12, 54:4, 64:20, 89:15, 89:19</p> <p><b>inventive</b> [1] - 19:11</p> <p><b>inventor</b> [5] - 21:20, 46:4,</p>	<p>46:7, 54:8, 89:14</p> <p><b>inventor's</b> [2] - 47:6, 54:17</p> <p><b>inventors</b> [6] - 29:3, 46:2, 47:18, 47:22, 53:5, 54:1</p> <p><b>issue</b> [24] - 4:22, 7:21, 20:4, 23:2, 24:20, 40:25, 64:1, 64:2, 64:14, 65:10, 65:14, 65:15, 66:4, 66:9, 67:2, 67:15, 69:14, 85:12, 88:21, 93:7, 100:10, 102:20</p> <p><b>issues</b> [3] - 23:1, 54:18, 90:1</p> <p><b>itself</b> [3] - 18:3, 60:13, 64:21</p>	<p><b>Knutsen</b> [1] - 61:15</p>	<p><b>lift</b> [1] - 13:3</p> <p><b>lifted</b> [1] - 20:2</p> <p><b>light</b> [2] - 9:12, 22:22</p> <p><b>lights</b> [1] - 94:17</p> <p><b>limit</b> [13] - 28:16, 28:20, 28:25, 29:12, 39:25, 40:2, 45:22, 46:2, 46:6, 46:8, 49:19, 89:3, 89:15</p> <p><b>limitation</b> [7] - 21:12, 21:20, 29:18, 37:9, 37:12, 86:22, 103:7</p> <p><b>limitations</b> [2] - 37:15, 45:19</p> <p><b>limited</b> [1] - 49:19</p> <p><b>limiting</b> [2] - 21:19, 54:23</p> <p><b>limits</b> [2] - 90:4</p> <p><b>line</b> [13] - 6:14, 15:25, 51:18, 61:10, 61:21, 81:10, 81:11, 81:12, 86:8, 98:22, 98:23, 98:25, 99:3</p> <p><b>lined</b> [3] - 70:15, 80:25, 81:4</p> <p><b>lines</b> [4] - 46:22, 77:5, 95:10, 98:24</p> <p><b>lingo</b> [1] - 46:6</p> <p><b>lining</b> [1] - 81:13</p> <p><b>link</b> [2] - 39:25, 40:1</p> <p><b>list</b> [3] - 101:9, 101:11, 101:16</p> <p><b>lists</b> [1] - 41:10</p> <p><b>literature</b> [8] - 23:15, 24:2, 24:21, 24:22, 30:2, 32:6, 36:21, 43:22</p> <p><b>LLC</b> [4] - 1:4, 1:7, 7:7, 7:8</p>

<p>49:21, 51:14, 51:15, 52:9, 52:13, 53:15, 56:20, 57:3, 57:11, 57:19, 57:22, 58:15, 58:19, 59:12, 59:19, 59:21, 60:4, 60:5, 60:8, 60:10, 60:19, 64:23, 65:3, 65:4, 69:9, 70:16, 73:9, 79:7, 84:3, 87:11, 88:20, 88:24, 90:20, 91:5, 91:19, 92:23, 95:16, 99:25, 101:3, 101:16</p> <p><b>looked</b> [6] - 39:19, 79:8, 80:9, 82:19, 83:8, 98:21</p> <p><b>looking</b> [20] - 22:14, 51:23, 51:24, 52:1, 59:6, 60:11, 70:11, 79:12, 79:13, 79:14, 79:15, 81:8, 83:7, 92:22, 98:21, 102:23, 102:24, 102:25, 103:9</p> <p><b>lost</b> [7] - 8:17, 8:19, 22:22, 24:1, 25:12, 31:14, 42:14</p> <p><b>loud</b> [1] - 94:9</p> <p><b>louder</b> [2] - 12:13, 94:9</p> <p><b>loudly</b> [1] - 94:13</p> <p><b>lower</b> [10] - 12:22, 16:2, 17:25, 18:25, 30:1, 35:12, 36:20, 36:23, 39:24, 92:3</p> <p><b>lowering</b> [3] - 13:2, 16:21, 51:10</p> <p><b>lucky</b> [1] - 4:3</p> <p><b>LYNN</b> [1] - 1:10</p> <p><b>Lyon</b> [5] - 60:21, 61:12, 61:16, 61:24</p>	<p><b>matters</b> [1] - 104:2</p> <p><b>McKinney</b> [1] - 1:20</p> <p><b>mean</b> [17] - 4:11, 5:14, 6:17, 46:21, 48:15, 49:2, 50:11, 51:21, 52:5, 53:8, 59:22, 62:20, 77:4, 102:21, 103:15, 105:15, 105:22</p> <p><b>meaning</b> [38] - 7:13, 8:2, 8:4, 8:24, 9:1, 11:6, 11:22, 12:2, 20:13, 20:24, 21:3, 21:5, 21:23, 23:3, 23:6, 23:22, 23:24, 29:5, 31:1, 31:5, 33:1, 33:13, 34:11, 34:15, 41:9, 41:21, 44:8, 44:12, 46:1, 46:8, 54:10, 54:20, 55:5, 66:1, 68:16, 100:11, 100:13</p> <p><b>meanings</b> [6] - 11:13, 21:6, 41:15, 41:18, 42:12, 42:13</p> <p><b>means</b> [13] - 13:8, 19:19, 27:22, 30:8, 37:11, 40:23, 42:5, 42:9, 64:13, 96:14, 103:6, 103:7</p> <p><b>MEANS</b> [1] - 1:24</p> <p><b>means-plus-function</b> [3] - 64:13, 103:6, 103:7</p> <p><b>meant</b> [4] - 7:24, 41:21, 53:5, 94:8</p> <p><b>meet</b> [1] - 14:8</p> <p><b>memorable</b> [1] - 62:25</p> <p><b>men</b> [1] - 35:4</p> <p><b>mention</b> [11] - 3:20, 26:19, 34:1, 37:18, 37:24, 38:3, 38:25, 39:11, 40:15, 40:19</p> <p><b>mentioned</b> [2] - 33:25, 37:25</p> <p><b>mentions</b> [2] - 34:25, 39:5</p> <p><b>merit</b> [1] - 44:6</p> <p><b>Merriam</b> [1] - 10:1</p> <p><b>Merriam-Webster's</b> [1] - 10:1</p> <p><b>met</b> [1] - 5:15</p> <p><b>method</b> [1] - 89:20</p> <p><b>microphone</b> [4] - 12:12, 67:24, 68:9, 95:1</p> <p><b>microphones</b> [1] - 94:17</p> <p><b>middle</b> [1] - 14:8</p> <p><b>might</b> [6] - 15:16, 15:17, 40:11, 53:6, 62:13, 87:6</p> <p><b>mind</b> [2] - 63:18, 64:11</p> <p><b>minimum</b> [2] - 27:16, 27:18</p> <p><b>minute</b> [5] - 12:8, 21:12, 29:8, 30:19, 78:16</p> <p><b>minutes</b> [1] - 44:19</p> <p><b>mischaracterize</b> [1] - 80:13</p> <p><b>misexaggerated</b> [1] - 15:10</p> <p><b>misrepresent</b> [1] - 97:23</p> <p><b>missed</b> [2] - 81:15, 94:7</p> <p><b>missing</b> [1] - 94:21</p> <p><b>misunderstand</b> [1] - 67:16</p> <p><b>modest</b> [1] - 3:3</p> <p><b>money</b> [3] - 16:18, 17:2,</p>	<p>17:12</p> <p><b>morning</b> [7] - 3:10, 49:14, 63:3, 63:4, 67:22, 67:23</p> <p><b>morph</b> [1] - 20:7</p> <p><b>morphed</b> [1] - 50:11</p> <p><b>morphs</b> [1] - 5:1</p> <p><b>most</b> [8] - 7:13, 21:16, 48:13, 63:12, 65:1, 69:3, 98:7, 102:20</p> <p><b>motion</b> [13] - 7:19, 7:25, 8:6, 8:18, 21:14, 22:22, 22:24, 23:1, 25:9, 29:5, 30:24, 43:15, 65:14</p> <p><b>mount</b> [2] - 14:19, 60:2</p> <p><b>mounted</b> [16] - 17:8, 36:5, 48:7, 49:1, 49:3, 50:13, 56:21, 58:14, 59:21, 60:4, 60:9, 60:23, 61:14, 61:19, 62:7, 72:5</p> <p><b>move</b> [4] - 37:20, 72:9, 98:19, 101:2</p> <p><b>moved</b> [1] - 43:14</p> <p><b>movement</b> [10] - 71:24, 95:12, 95:19, 95:22, 96:7, 96:11, 97:12, 97:15, 99:18, 100:20</p> <p><b>moves</b> [2] - 72:1, 100:7</p> <p><b>moving</b> [3] - 13:12, 25:8, 26:8</p> <p><b>MR</b> [86] - 3:11, 3:13, 4:6, 4:23, 5:12, 5:14, 5:16, 5:23, 6:4, 6:25, 7:1, 7:5, 8:11, 9:19, 9:24, 11:1, 11:3, 12:10, 12:13, 12:17, 15:4, 15:8, 16:4, 16:7, 17:8, 18:21, 19:16, 19:17, 30:11, 30:13, 30:15, 30:17, 30:20, 30:22, 31:20, 32:1, 36:1, 36:4, 36:13, 36:16, 37:6, 37:7, 37:9, 38:23, 39:2, 39:5, 39:16, 39:21, 40:4, 40:8, 40:10, 40:12, 42:2, 42:4, 43:8, 44:15, 44:20, 44:25, 45:2, 45:5, 48:11, 48:14, 48:17, 48:23, 48:24, 50:10, 50:25, 62:13, 62:25, 64:8, 64:10, 74:14, 74:17, 74:19, 104:16, 104:18, 104:24, 105:4, 105:5, 105:6, 105:8, 105:9, 105:10, 105:14, 105:17, 105:21</p> <p><b>MS</b> [69] - 3:10, 3:12, 3:14, 3:16, 3:22, 3:24, 4:3, 4:8, 4:17, 6:1, 6:7, 6:10, 6:14, 6:22, 6:24, 7:3, 44:21, 48:19, 48:22, 62:18, 63:1, 63:3, 63:7, 63:16, 63:20, 64:9, 64:11, 67:20, 67:22, 68:1, 68:13, 72:22, 72:24,</p>	<p>73:8, 74:2, 74:3, 74:4, 74:9, 74:12, 75:5, 75:12, 75:14, 78:17, 81:21, 82:11, 88:5, 88:9, 91:8, 91:10, 91:16, 93:24, 94:6, 94:8, 94:23, 95:4, 96:21, 96:25, 97:3, 97:6, 97:21, 98:3, 98:16, 98:18, 98:19, 101:5, 101:14, 102:13, 102:18, 104:23</p> <p><b>multiple</b> [1] - 9:25</p> <p><b>must</b> [5] - 21:8, 25:23, 28:12, 41:17</p>
<b>N</b>			
<p><b>name</b> [1] - 3:25</p> <p><b>narrow</b> [3] - 14:9, 14:13, 14:18</p> <p><b>native</b> [1] - 101:18</p> <p><b>near</b> [3] - 77:22, 85:11, 99:2</p> <p><b>nearer</b> [1] - 46:12</p> <p><b>nearly</b> [2] - 4:12, 94:14</p> <p><b>necessary</b> [7] - 13:13, 21:7, 21:15, 21:18, 29:4, 31:13, 33:13</p> <p><b>necessity</b> [1] - 21:8</p> <p><b>need</b> [12] - 4:5, 4:6, 17:6, 17:16, 40:11, 41:15, 69:9, 76:2, 88:18, 88:21, 93:18, 100:11</p> <p><b>needed</b> [3] - 7:23, 27:2</p> <p><b>needs</b> [1] - 43:10</p> <p><b>never</b> [3] - 13:24, 53:17, 94:22</p> <p><b>new</b> [5] - 16:23, 27:6, 90:15, 91:4</p> <p><b>next</b> [15] - 22:23, 24:17, 30:23, 31:7, 35:13, 44:15, 52:13, 57:22, 65:3, 77:3, 78:3, 82:17, 91:11, 96:24, 99:7</p> <p><b>nice</b> [1] - 4:10</p> <p><b>non</b> [1] - 17:23</p> <p><b>non-blade</b> [1] - 17:23</p> <p><b>none</b> [5] - 20:22, 34:21, 38:6, 39:9, 54:10</p> <p><b>normal</b> [1] - 44:13</p> <p><b>normally</b> [1] - 12:17</p> <p><b>note</b> [1] - 21:12</p> <p><b>notebook</b> [1] - 105:19</p> <p><b>nothing</b> [11] - 25:25, 27:11, 28:23, 33:7, 54:3, 54:7, 62:25, 76:4, 79:19, 90:3</p> <p><b>notice</b> [1] - 54:8</p> <p><b>noun</b> [3] - 42:5, 42:7, 42:9</p> <p><b>nowhere</b> [6] - 38:8, 39:13, 40:24, 47:6, 57:9, 59:7</p> <p><b>number</b> [16] - 7:18, 12:9, 15:22, 27:8, 33:3, 47:1,</p>			



47:12, 47:13, 47:15, 47:20, 49:12, 52:17, 52:18, 87:19, 95:24, 100:17 <b>numbered</b> [2] - 79:9, 80:10 <b>numeral</b> [1] - 61:1	<b>opposite</b> [5] - 18:7, 18:21, 18:24, 19:22, 55:12 <b>options</b> [2] - 5:4, 6:5 <b>order</b> [3] - 6:18, 9:8, 69:18 <b>ordinary</b> [40] - 7:13, 8:1, 8:4, 8:24, 11:6, 11:13, 11:22, 12:2, 20:13, 20:24, 21:3, 21:5, 21:9, 21:23, 23:3, 23:6, 23:22, 23:23, 29:4, 30:25, 31:5, 33:1, 33:13, 34:8, 34:11, 34:15, 42:12, 42:13, 44:8, 44:12, 45:24, 46:1, 46:8, 54:9, 54:20, 55:5, 56:17, 56:23, 65:25, 66:1 <b>orientation</b> [3] - 9:5, 53:19, 77:9 <b>oriented</b> [1] - 70:24 <b>orienting</b> [1] - 63:22 <b>original</b> [5] - 39:3, 90:9, 90:12, 91:1 <b>originally</b> [2] - 6:2, 90:7 <b>otherwise</b> [2] - 57:18, 96:22 <b>outer</b> [6] - 48:2, 48:3, 48:4, 48:8, 58:6, 59:20 <b>outermost</b> [4] - 59:1, 59:3, 59:17, 93:3 <b>outside</b> [3] - 10:16, 43:9, 65:4 <b>outward</b> [4] - 33:18, 48:1, 58:3, 58:6 <b>overcome</b> [2] - 21:20, 93:12 <b>overlay</b> [1] - 35:8 <b>own</b> [9] - 12:6, 23:15, 43:22, 44:1, 44:3, 46:5, 54:2, 95:1	24:23, 28:2, 29:23, 42:6, 45:12, 48:4, 48:7, 59:10, 62:5, 77:13, 78:6, 88:21, 95:11, 104:20 <b>particular</b> [1] - 54:4 <b>particularly</b> [1] - 69:6 <b>parties'</b> [1] - 95:5 <b>PARTRIDGE</b> [59] - 3:10, 3:12, 3:14, 3:16, 3:22, 3:24, 4:3, 4:8, 4:17, 6:1, 6:7, 6:10, 6:14, 6:22, 6:24, 7:3, 44:21, 48:19, 48:22, 62:18, 63:1, 63:3, 63:7, 63:16, 63:20, 64:9, 64:11, 67:20, 72:22, 72:24, 73:8, 74:2, 74:4, 74:9, 74:12, 74:19, 75:5, 75:12, 75:14, 78:17, 81:21, 82:11, 88:5, 88:9, 91:8, 91:10, 91:16, 93:24, 94:6, 94:8, 94:23, 96:25, 97:3, 97:21, 98:16, 98:18, 102:13, 102:18, 104:23 <b>Partridge</b> [9] - 1:19, 22:4, 35:14, 62:17, 71:5, 92:9, 98:5, 98:10, 100:10 <b>partridge</b> [3] - 68:1, 69:22, 72:20 <b>Partridge@fr.com</b> [1] - 1:23 <b>parts</b> [6] - 19:10, 32:13, 45:6, 101:8, 101:11, 101:16 <b>past</b> [2] - 18:5, 18:22 <b>pasted</b> [1] - 59:5 <b>patch</b> [4] - 17:13, 17:16, 24:6, 24:16 <b>patent</b> [100] - 7:7, 14:2, 15:20, 16:12, 17:3, 19:8, 20:5, 28:6, 28:7, 28:25, 30:3, 34:16, 34:24, 35:4, 35:5, 35:20, 38:1, 38:13, 39:3, 39:13, 40:3, 40:12, 41:2, 44:16, 45:10, 45:21, 46:6, 46:22, 47:6, 47:15, 48:17, 49:18, 49:20, 53:22, 54:14, 54:17, 54:18, 55:6, 55:8, 55:10, 55:14, 55:18, 56:5, 57:2, 57:5, 57:23, 58:21, 60:21, 60:24, 61:12, 61:15, 62:8, 62:19, 64:18, 64:21, 65:8, 65:20, 66:2, 66:3, 66:23, 67:3, 68:2, 68:3, 68:5, 69:12, 69:16, 70:10, 71:6, 77:5, 77:25, 78:7, 79:7, 80:15, 80:16, 80:20, 81:17, 81:23, 82:4, 84:7, 84:25, 85:4, 86:19, 87:5, 87:7, 87:9, 87:24, 88:11, 90:16, 92:9, 92:24, 93:14, 93:15, 95:9, 95:23, 96:5, 101:7, 102:8, 102:12	<b>Patent</b> [12] - 54:16, 55:8, 55:14, 56:13, 56:19, 57:4, 61:25, 62:1, 62:2, 90:9, 90:24, 91:11 <b>patented</b> [11] - 7:10, 14:23, 16:14, 19:19, 19:21, 41:12, 69:20, 80:17, 89:14, 97:19 <b>patentee</b> [5] - 7:24, 28:8, 64:19, 64:20, 90:19 <b>patents</b> [50] - 20:9, 20:10, 24:14, 26:18, 29:3, 29:7, 34:14, 35:2, 49:9, 54:1, 55:10, 57:24, 64:5, 64:15, 64:24, 65:7, 66:15, 66:21, 71:9, 75:24, 76:4, 76:5, 76:9, 76:11, 76:13, 77:4, 77:17, 83:17, 85:21, 86:24, 88:24, 88:25, 89:4, 89:6, 89:8, 89:24, 90:24, 91:23, 92:9, 96:16, 98:20, 100:14, 100:16, 103:1, 103:21, 104:8, 104:9, 104:10 <b>patents'</b> [1] - 55:4 <b>path</b> [19] - 14:8, 16:1, 18:8, 18:12, 18:14, 18:16, 19:6, 40:17, 71:24, 87:19, 95:12, 95:18, 95:21, 96:6, 96:11, 97:12, 97:15, 99:17, 100:20 <b>PC</b> [1] - 1:20 <b>PDC</b> [6] - 71:22, 71:23, 72:6, 74:24, 102:9 <b>peen</b> [2] - 43:1, 51:21 <b>peer</b> [1] - 14:6 <b>people</b> [4] - 24:16, 94:9, 104:20 <b>per</b> [3] - 12:8, 13:9, 13:10 <b>performed</b> [1] - 103:8 <b>person</b> [10] - 8:1, 21:9, 23:21, 30:25, 45:24, 56:17, 56:23, 63:4, 93:14 <b>personal</b> [1] - 95:1 <b>perspective</b> [1] - 42:4 <b>Petroleum</b> [2] - 10:21, 11:16 <b>petroleum</b> [1] - 11:15 <b>Phillips</b> [4] - 21:1, 64:25, 68:8, 68:22 <b>physics</b> [4] - 75:1, 75:3, 75:6 <b>pick</b> [1] - 85:12 <b>picture</b> [4] - 39:18, 55:11, 71:21, 91:15 <b>pictures</b> [1] - 28:13 <b>piece</b> [8] - 12:23, 13:4, 25:3, 54:12, 64:1, 77:19, 93:20 <b>pieces</b> [1] - 46:14 <b>pink</b> [1] - 14:25 <b>pipe</b> [12] - 10:13, 12:23, 16:3, 16:22, 16:23, 16:25, 17:24, 17:25, 18:1, 25:3, 40:7 <b>place</b> [2] - 66:15, 74:22	
<b>O</b>				
<b>objection</b> [2] - 53:3, 74:14 <b>obtain</b> [1] - 86:23 <b>obvious</b> [1] - 29:11 <b>obviously</b> [1] - 13:1 <b>October</b> [1] - 35:15 <b>odd</b> [2] - 93:8, 93:25 <b>OF</b> [2] - 1:2, 1:10 <b>Office</b> [12] - 54:16, 55:9, 55:14, 56:13, 56:19, 57:4, 61:25, 62:2, 90:9, 90:24, 91:11 <b>office</b> [3] - 55:15, 59:7, 59:8 <b>often</b> [3] - 21:2, 29:19, 33:16 <b>oil</b> [6] - 9:21, 17:13, 17:16, 24:6, 24:16, 32:13 <b>oilfield</b> [3] - 9:25, 10:18, 19:12 <b>old</b> [4] - 4:14, 55:8, 73:6, 94:14 <b>old-fashioned</b> [1] - 4:14 <b>Omega</b> [1] - 90:18 <b>once</b> [3] - 17:25, 18:22, 51:7 <b>one</b> [76] - 3:4, 4:8, 4:9, 4:21, 4:25, 5:3, 5:5, 6:9, 6:19, 7:2, 7:18, 8:5, 8:15, 10:5, 10:25, 12:23, 17:22, 17:24, 18:2, 18:5, 18:18, 19:9, 19:10, 20:7, 21:18, 22:15, 22:16, 27:3, 27:6, 32:7, 36:22, 39:19, 42:13, 42:17, 42:20, 47:16, 48:10, 48:12, 49:13, 50:17, 52:19, 53:2, 54:8, 55:1, 57:3, 57:22, 58:3, 58:13, 60:11, 66:4, 69:21, 69:23, 71:18, 74:1, 76:10, 77:21, 81:10, 85:12, 88:13, 89:12, 89:25, 91:17, 91:20, 92:1, 92:3, 92:14, 92:19, 93:6, 98:12, 99:9, 102:13, 104:24, 105:7 <b>ones</b> [5] - 16:5, 52:10, 52:11, 53:11, 81:9 <b>oops</b> [1] - 89:25 <b>open</b> [4] - 10:9, 15:1, 32:14, 35:10 <b>operate</b> [1] - 73:2 <b>operation</b> [3] - 17:5, 17:12, 104:5 <b>operations</b> [2] - 16:19, 61:9 <b>opinion</b> [1] - 35:7 <b>opponent</b> [1] - 94:20 <b>opportunity</b> [1] - 104:19	<b>P</b>			
	<b>p.m</b> [1] - 106:2 <b>pacer</b> [1] - 104:25 <b>packers</b> [1] - 14:17 <b>page</b> [44] - 8:22, 23:18, 28:1, 31:19, 32:4, 34:24, 35:13, 35:14, 35:20, 35:22, 35:24, 36:21, 36:22, 38:10, 40:4, 40:16, 41:10, 41:16, 42:20, 42:25, 70:1, 70:8, 72:1, 72:22, 73:12, 73:23, 74:2, 74:3, 74:6, 75:12, 75:15, 77:3, 78:16, 83:7, 86:21, 88:9, 89:2, 91:11, 97:18, 99:11, 99:12, 99:13, 100:7 <b>paper</b> [1] - 34:19 <b>paragraph</b> [3] - 59:1, 59:22 <b>paralegals</b> [1] - 3:20 <b>parallel</b> [1] - 41:20 <b>paraphrase</b> [1] - 77:19 <b>parenthetical</b> [3] - 55:19, 57:7, 58:4 <b>part</b> [17] - 3:18, 13:9, 23:13,			

<p><b>places</b> [1] - 66:23</p> <p><b>plain</b> [27] - 7:12, 8:4, 8:24, 9:1, 11:6, 20:13, 21:22, 23:3, 23:22, 23:23, 28:25, 29:4, 31:5, 32:25, 33:13, 34:8, 34:10, 34:15, 42:12, 42:13, 44:8, 44:12, 46:1, 54:20, 55:4, 65:25, 66:1</p> <p><b>plainly</b> [2] - 20:5, 41:2</p> <p><b>Plaintiff</b> [1] - 1:5</p> <p><b>PLAINTIFF</b> [1] - 1:13</p> <p><b>Plaintiffs</b> [1] - 8:24</p> <p><b>plaintiffs</b> [1] - 4:19</p> <p><b>planning</b> [1] - 74:13</p> <p><b>platform</b> [1] - 66:11</p> <p><b>play</b> [2] - 73:24</p> <p><b>played</b> [1] - 74:18</p> <p><b>plenty</b> [1] - 64:8</p> <p><b>plotted</b> [1] - 80:8</p> <p><b>plotting</b> [1] - 80:10</p> <p><b>plugged</b> [1] - 95:1</p> <p><b>plurality</b> [5] - 34:25, 55:18, 57:6, 57:15, 58:11</p> <p><b>plus</b> [3] - 64:13, 103:6, 103:7</p> <p><b>PM</b> [1] - 95:20</p> <p><b>point</b> [12] - 15:13, 20:9, 21:1, 34:6, 36:18, 41:9, 59:11, 75:6, 75:9, 75:19, 77:13, 87:22</p> <p><b>pointed</b> [3] - 97:8, 98:5, 98:10</p> <p><b>pointing</b> [3] - 22:5, 22:15, 48:25</p> <p><b>points</b> [2] - 36:3, 56:7</p> <p><b>poly</b> [1] - 52:7</p> <p><b>poly-diamond</b> [1] - 52:7</p> <p><b>portion</b> [1] - 28:20</p> <p><b>portions</b> [4] - 35:11, 46:12, 55:23, 57:12</p> <p><b>position</b> [18] - 7:16, 20:13, 21:22, 22:1, 22:20, 23:20, 23:25, 27:1, 27:5, 31:13, 36:17, 82:25, 84:4, 84:16, 84:20, 99:15, 99:21</p> <p><b>post</b> [1] - 94:15</p> <p><b>post-depression</b> [1] - 94:15</p> <p><b>potentially</b> [1] - 86:3</p> <p><b>pound</b> [1] - 73:21</p> <p><b>pounds</b> [1] - 73:20</p> <p><b>powerpoint</b> [1] - 35:24</p> <p><b>practice</b> [1] - 101:3</p> <p><b>practiced</b> [1] - 94:16</p> <p><b>pre</b> [1] - 94:20</p> <p><b>pre-air</b> [1] - 94:20</p> <p><b>preceding</b> [1] - 87:1</p> <p><b>precisely</b> [3] - 31:5, 32:25, 38:11</p> <p><b>prefer</b> [2] - 5:22, 5:23</p> <p><b>preferably</b> [9] - 47:12, 47:13,</p>	<p>47:19, 93:2, 95:11, 95:24, 96:5, 100:17, 100:19</p> <p><b>preferred</b> [21] - 15:6, 28:12, 28:13, 28:17, 28:18, 28:21, 28:22, 28:23, 29:1, 29:2, 48:6, 49:8, 49:18, 49:21, 49:24, 50:15, 50:17, 53:23, 61:11, 89:4</p> <p><b>present</b> [2] - 5:6</p> <p><b>presentation</b> [9] - 5:17, 5:24, 7:17, 9:8, 65:11, 65:18, 75:15, 97:20, 98:5</p> <p><b>presentations</b> [1] - 104:25</p> <p><b>Presley</b> [4] - 57:5, 57:6, 57:14, 57:25</p> <p><b>pressure</b> [4] - 25:9, 26:8, 43:14, 73:20</p> <p><b>presume</b> [1] - 41:17</p> <p><b>presumed</b> [1] - 56:13</p> <p><b>presumption</b> [5] - 20:24, 21:4, 23:5, 93:11</p> <p><b>pretend</b> [1] - 68:11</p> <p><b>pretty</b> [5] - 45:14, 45:16, 74:19, 87:11, 105:17</p> <p><b>prevent</b> [1] - 60:2</p> <p><b>preview</b> [1] - 72:19</p> <p><b>previewed</b> [1] - 68:1</p> <p><b>previous</b> [1] - 9:21</p> <p><b>previously</b> [2] - 80:9, 98:21</p> <p><b>primary</b> [1] - 7:21</p> <p><b>principle</b> [5] - 28:6, 37:1, 37:23, 38:16, 70:7</p> <p><b>problem</b> [1] - 18:7</p> <p><b>problems</b> [2] - 14:1, 14:11</p> <p><b>PROCEEDINGS</b> [3] - 1:10, 1:24, 3:1</p> <p><b>proceedings</b> [2] - 106:2, 106:9</p> <p><b>PRODUCED</b> [1] - 1:25</p> <p><b>Production</b> [1] - 10:22</p> <p><b>profile</b> [3] - 52:2, 52:15, 53:2</p> <p><b>progress</b> [1] - 88:8</p> <p><b>progresses</b> [1] - 99:13</p> <p><b>progression</b> [2] - 54:14, 85:3</p> <p><b>project</b> [1] - 94:21</p> <p><b>projection</b> [4] - 31:21, 32:2, 42:9, 42:16</p> <p><b>properly</b> [1] - 85:22</p> <p><b>proposal</b> [1] - 4:13</p> <p><b>proposed</b> [8] - 9:11, 9:16, 20:19, 28:10, 44:12, 88:15, 95:5, 95:6</p> <p><b>proposing</b> [1] - 9:3</p> <p><b>prosecute</b> [1] - 54:17</p> <p><b>prosecuted</b> [1] - 57:2</p> <p><b>prosecution</b> [17] - 54:23, 54:25, 55:4, 62:3, 64:22, 65:2, 65:23, 68:20, 86:22, 89:18, 90:3, 90:7, 90:14, 93:9, 93:12, 103:21</p>	<p><b>protect</b> [7] - 51:5, 53:6, 53:11, 101:19, 102:4, 102:5, 102:9</p> <p><b>protrude</b> [1] - 61:18</p> <p><b>protruding</b> [3] - 61:8, 61:13, 61:16</p> <p><b>protrusion</b> [3] - 60:6, 60:8, 60:12</p> <p><b>prove</b> [1] - 14:3</p> <p><b>proven</b> [3] - 8:17, 24:1, 25:21</p> <p><b>provide</b> [2] - 9:9, 11:7</p> <p><b>provided</b> [1] - 16:15</p> <p><b>provides</b> [3] - 54:19, 68:24, 71:12</p> <p><b>proving</b> [2] - 23:14, 23:15</p> <p><b>PTO</b> [2] - 54:15, 57:24</p> <p><b>public</b> [2] - 80:16, 90:18</p> <p><b>publications</b> [1] - 34:14</p> <p><b>pull</b> [7] - 13:3, 14:16, 16:23, 16:25, 72:14, 73:3, 74:10</p> <p><b>purpose</b> [1] - 81:1</p> <p><b>purposely</b> [1] - 51:17</p> <p><b>push</b> [2] - 14:18, 18:15</p> <p><b>pushed</b> [1] - 97:15</p> <p><b>pushing</b> [2] - 18:25, 19:3</p> <p><b>put</b> [13] - 12:1, 18:6, 25:2, 53:10, 54:7, 60:6, 76:12, 78:12, 82:23, 82:24, 97:23</p>	<p>30:17, 30:20, 30:22, 31:20, 32:1, 36:1, 36:4, 36:13, 36:16, 37:7, 37:9, 38:23, 39:2, 39:5, 39:16, 40:4, 40:8, 40:10, 40:12, 42:2, 42:4, 43:8, 44:15, 44:20, 48:23, 62:25, 104:16, 104:18, 105:4, 105:6, 105:9, 105:17</p> <p><b>rapidly</b> [5] - 8:8, 8:16, 13:5, 21:25, 42:18</p> <p><b>rather</b> [3] - 5:2, 72:10, 103:8</p> <p><b>rbowick@raleighbowick.com</b> [1] - 1:17</p> <p><b>RDR</b> [2] - 2:2, 106:13</p> <p><b>reactive</b> [1] - 13:21</p> <p><b>read</b> [14] - 22:25, 28:8, 29:18, 29:23, 30:12, 30:14, 30:20, 31:22, 37:15, 75:20, 76:25, 77:19, 80:11, 85:15</p> <p><b>ready</b> [3] - 31:17, 31:24, 31:25</p> <p><b>real</b> [7] - 22:12, 39:22, 63:15, 66:4, 81:8, 91:5, 94:19</p> <p><b>realize</b> [1] - 23:10</p> <p><b>really</b> [8] - 4:10, 11:25, 23:8, 23:19, 29:14, 35:18, 51:23, 91:18</p> <p><b>Ream</b> [2] - 70:9, 102:8</p> <p><b>ream</b> [11] - 11:21, 12:2, 12:6, 12:20, 15:19, 15:24, 16:24, 51:1, 71:9, 101:6, 101:8</p> <p><b>reamer</b> [163] - 8:14, 8:25, 9:2, 9:10, 10:2, 10:6, 10:8, 10:17, 10:19, 11:10, 11:11, 11:21, 12:1, 12:7, 12:21, 13:7, 14:19, 14:23, 15:19, 15:24, 16:14, 16:17, 16:24, 17:7, 17:14, 17:15, 17:18, 17:21, 17:22, 18:7, 18:12, 18:13, 18:25, 19:1, 19:6, 19:9, 19:19, 19:21, 19:22, 22:6, 24:18, 24:20, 26:15, 27:19, 28:4, 30:1, 31:9, 31:12, 32:14, 32:22, 33:4, 33:18, 34:16, 42:23, 43:15, 43:19, 43:21, 47:2, 48:2, 48:5, 48:8, 51:5, 51:10, 53:19, 53:21, 55:8, 55:11, 55:12, 55:13, 55:25, 57:13, 57:15, 58:2, 58:4, 58:6, 58:20, 61:17, 66:7, 66:8, 67:1, 67:2, 67:14, 69:15, 69:19, 69:25, 70:1, 70:3, 70:4, 70:6, 70:17, 70:25, 71:10, 71:11, 71:22, 72:6, 76:3, 76:6, 76:10, 77:6, 77:9, 77:14, 78:10, 78:11, 78:15, 78:18, 79:13, 79:16, 79:24, 80:18, 80:21, 80:22,</p>
<b>Q</b>			
<p><b>questions</b> [3] - 19:13, 22:10, 62:13</p> <p><b>quick</b> [1] - 39:22</p> <p><b>quickly</b> [1] - 91:5</p> <p><b>quiet</b> [1] - 5:6</p> <p><b>quirky</b> [1] - 6:18</p> <p><b>quite</b> [1] - 94:23</p> <p><b>quote</b> [5] - 22:25, 30:2, 30:24, 59:23, 59:24</p> <p><b>quotes</b> [1] - 7:19</p>			
<b>R</b>			
<p><b>R.5</b> [1] - 101:16</p> <p><b>R3</b> [1] - 93:3</p> <p><b>radially</b> [5] - 33:18, 48:1, 57:12, 58:3, 58:6</p> <p><b>radius</b> [2] - 18:3, 93:3</p> <p><b>raised</b> [4] - 35:11, 55:23, 66:11, 66:13</p> <p><b>raising</b> [1] - 51:10</p> <p><b>Raley</b> [12] - 1:13, 4:18, 7:4, 7:6, 12:4, 30:10, 45:13, 45:17, 46:13, 51:20, 62:24, 67:10</p> <p><b>RALEY</b> [48] - 1:14, 3:11, 3:13, 4:6, 4:23, 5:12, 5:14, 5:16, 5:23, 6:25, 7:5, 8:11, 19:17, 30:11, 30:13, 30:15,</p>			

<p>81:22, 81:25, 82:3, 82:15, 82:17, 83:4, 83:10, 83:15, 83:17, 83:18, 83:23, 84:8, 84:10, 85:24, 87:20, 88:23, 89:11, 89:23, 91:22, 91:23, 92:1, 92:6, 92:14, 92:19, 92:21, 92:23, 92:24, 92:25, 93:1, 93:17, 95:13, 95:21, 97:17, 97:19, 99:8, 99:11, 100:21, 101:24, 101:25, 102:11, 104:5</p> <p><b>reamer's</b> [2] - 44:2, 44:4</p> <p><b>reamers</b> [35] - 7:10, 8:7, 9:20, 10:22, 11:21, 12:5, 13:13, 17:17, 18:4, 18:6, 18:8, 18:18, 18:21, 18:23, 19:7, 19:24, 28:3, 34:19, 36:23, 42:23, 46:11, 61:16, 66:10, 70:24, 73:2, 92:11, 92:12, 92:14, 92:22, 93:2, 95:24, 100:17, 104:9, 104:14</p> <p><b>reaming</b> [12] - 10:3, 13:4, 16:15, 16:19, 17:5, 22:5, 34:14, 59:25, 60:20, 61:4, 61:9, 92:10</p> <p><b>reams</b> [5] - 10:2, 10:19, 11:19, 11:20, 11:23</p> <p><b>reason</b> [7] - 11:8, 13:13, 17:18, 66:18, 68:6, 73:14, 99:16</p> <p><b>reasonable</b> [2] - 6:18, 55:1</p> <p><b>reasonably</b> [1] - 54:8</p> <p><b>reasons</b> [3] - 21:18, 55:9, 104:13</p> <p><b>recently</b> [1] - 7:15</p> <p><b>recessed</b> [1] - 44:22</p> <p><b>reciprocal</b> [1] - 16:5</p> <p><b>recites</b> [1] - 103:7</p> <p><b>reciting</b> [1] - 22:13</p> <p><b>recognize</b> [2] - 24:7, 34:10</p> <p><b>recommend</b> [1] - 9:8</p> <p><b>record</b> [9] - 20:8, 45:7, 69:7, 103:20, 105:3, 105:11, 105:12, 106:1, 106:9</p> <p><b>RECORDED</b> [1] - 1:24</p> <p><b>red</b> [13] - 14:24, 49:10, 52:10, 52:19, 52:20, 58:9, 59:13, 60:6, 60:11, 70:19, 84:3, 96:12, 98:8</p> <p><b>redefine</b> [1] - 54:9</p> <p><b>redo</b> [1] - 53:13</p> <p><b>reduce</b> [1] - 59:24</p> <p><b>refer</b> [4] - 33:16, 35:21, 35:23, 36:22</p> <p><b>reference</b> [5] - 32:10, 37:5, 59:23, 61:24</p> <p><b>referenced</b> [2] - 72:13, 74:6</p> <p><b>referred</b> [1] - 46:4</p> <p><b>referring</b> [2] - 59:1, 59:13</p>	<p><b>refers</b> [1] - 56:2</p> <p><b>regarding</b> [9] - 7:10, 19:18, 27:10, 39:8, 75:2, 85:12, 93:7, 102:7, 102:19</p> <p><b>regular</b> [1] - 10:1</p> <p><b>rehash</b> [2] - 45:13, 46:17</p> <p><b>rejected</b> [3] - 55:16, 57:24, 90:9</p> <p><b>rejection</b> [4] - 56:7, 57:4, 57:23, 58:17</p> <p><b>related</b> [1] - 91:3</p> <p><b>relationship</b> [1] - 39:10</p> <p><b>relative</b> [4] - 82:21, 82:25, 95:13, 100:20</p> <p><b>relevant</b> [14] - 65:17, 67:6, 68:14, 71:18, 71:19, 71:20, 72:15, 75:8, 75:10, 103:14, 103:18, 104:5, 104:11, 104:14</p> <p><b>relies</b> [4] - 9:25, 50:20, 56:20, 58:16</p> <p><b>rely</b> [4] - 69:5, 72:11, 90:19, 93:14</p> <p><b>remaining</b> [2] - 45:6, 58:24</p> <p><b>remember</b> [5] - 73:20, 85:18, 91:23, 92:4, 92:21</p> <p><b>remnants</b> [1] - 32:16</p> <p><b>replow</b> [1] - 45:13</p> <p><b>reply</b> [4] - 23:18, 29:6, 53:3, 105:8</p> <p><b>reporter</b> [1] - 8:9</p> <p><b>REPORTER</b> [2] - 2:1, 101:13</p> <p><b>represent</b> [2] - 4:18, 7:7</p> <p><b>representation</b> [1] - 60:14</p> <p><b>representing</b> [2] - 49:2, 54:5</p> <p><b>reputation</b> [1] - 68:12</p> <p><b>require</b> [8] - 7:23, 27:13, 33:24, 37:18, 39:9, 40:22, 62:8, 91:23</p> <p><b>required</b> [4] - 21:12, 25:16, 25:18, 27:15</p> <p><b>requirement</b> [2] - 64:19, 85:20</p> <p><b>requires</b> [8] - 17:17, 20:19, 25:25, 33:7, 33:21, 33:22, 44:9, 71:6</p> <p><b>requiring</b> [1] - 37:12</p> <p><b>resembles</b> [1] - 32:2</p> <p><b>resembling</b> [1] - 31:21</p> <p><b>resistance</b> [5] - 18:9, 18:16, 18:25, 19:7, 60:17</p> <p><b>resistant</b> [1] - 59:23</p> <p><b>resolution</b> [1] - 21:6</p> <p><b>resolve</b> [2] - 23:1, 69:4</p> <p><b>respect</b> [1] - 58:8</p> <p><b>response</b> [5] - 23:13, 58:16, 58:22, 59:7, 59:8</p> <p><b>responsive</b> [1] - 74:3</p> <p><b>rest</b> [2] - 29:24, 31:22</p> <p><b>restriction</b> [5] - 33:6, 46:4,</p>	<p>47:18, 47:23, 54:5</p> <p><b>restrictively</b> [2] - 28:8, 46:1</p> <p><b>result</b> [1] - 75:7</p> <p><b>resumed</b> [1] - 44:23</p> <p><b>review</b> [1] - 80:17</p> <p><b>reviewing</b> [1] - 68:25</p> <p><b>revolutionary</b> [1] - 17:15</p> <p><b>rewrite</b> [1] - 21:17</p> <p><b>rewritten</b> [1] - 90:12</p> <p><b>RICHARDSON</b> [1] - 1:20</p> <p><b>ridges</b> [4] - 55:19, 55:20, 55:23</p> <p><b>right-hand</b> [9] - 24:24, 48:13, 60:8, 83:24, 84:17, 84:21, 95:20, 99:11</p> <p><b>Robert</b> [1] - 1:14</p> <p><b>roller</b> [11] - 24:7, 72:9, 73:13, 73:15, 73:19, 74:25, 75:7, 75:8, 104:4, 104:11</p> <p><b>roller-cone</b> [10] - 24:7, 72:9, 73:13, 73:15, 74:25, 75:7, 75:8, 104:4, 104:11</p> <p><b>room</b> [1] - 94:21</p> <p><b>Room</b> [1] - 2:2</p> <p><b>rooted</b> [3] - 23:23, 68:4, 69:22</p> <p><b>rotate</b> [4] - 12:5, 13:2, 51:12, 80:25</p> <p><b>rotated</b> [10] - 8:25, 9:2, 12:7, 12:17, 22:1, 28:1, 42:11, 42:17, 53:9, 84:11</p> <p><b>rotates</b> [5] - 12:19, 80:3, 95:13, 97:14, 100:21</p> <p><b>rotating</b> [13] - 12:5, 13:5, 13:8, 20:15, 20:16, 31:9, 33:5, 42:7, 51:9, 95:21, 95:22, 99:9, 99:11</p> <p><b>rotation</b> [2] - 79:25, 90:23</p> <p><b>rotational</b> [2] - 79:24, 87:19</p> <p><b>rotations</b> [1] - 12:8</p> <p><b>round</b> [4] - 61:11, 84:4, 84:5, 96:15</p> <p><b>rounded</b> [54] - 8:7, 8:14, 11:4, 21:24, 23:14, 24:5, 24:12, 24:15, 24:19, 24:22, 24:25, 25:3, 26:3, 26:23, 27:25, 28:18, 28:24, 29:9, 29:17, 30:4, 32:7, 32:8, 32:10, 38:2, 42:24, 43:4, 43:19, 43:21, 44:2, 49:13, 49:17, 50:6, 51:2, 51:3, 51:5, 51:10, 51:16, 52:1, 52:3, 52:5, 52:10, 52:12, 52:16, 52:22, 53:1, 53:6, 53:10, 59:5, 59:7, 61:6, 61:13, 61:17, 100:24, 101:19</p> <p><b>rounded-dome</b> [1] - 61:17</p> <p><b>row</b> [1] - 57:9</p> <p><b>RPM</b> [3] - 27:19, 27:22, 42:18</p>	<p><b>RPMS</b> [5] - 12:7, 12:10, 12:19, 13:8, 53:9</p> <p><b>rubbings</b> [1] - 32:16</p> <p><b>ruin</b> [1] - 68:12</p> <p><b>rules</b> [2] - 6:17, 6:18</p> <p><b>run</b> [9] - 10:8, 12:21, 14:12, 14:16, 16:17, 16:23, 51:6, 70:13, 72:25</p> <p><b>running</b> [5] - 53:21, 69:24, 70:1, 70:5, 73:5</p> <p><b>Rusk</b> [1] - 2:2</p>
<b>S</b>			
<p><b>sake</b> [1] - 15:11</p> <p><b>sample</b> [1] - 88:11</p> <p><b>saved</b> [1] - 17:11</p> <p><b>savings</b> [1] - 16:18</p> <p><b>saw</b> [3] - 17:16, 65:18, 78:12</p> <p><b>scared</b> [1] - 78:12</p> <p><b>Schlumberger</b> [1] - 40:4</p> <p><b>Schlumberger's</b> [1] - 24:25</p> <p><b>scope</b> [7] - 21:7, 21:19, 23:5, 46:3, 49:19, 54:6, 54:25</p> <p><b>scrapings</b> [1] - 32:17</p> <p><b>screwing</b> [1] - 12:23</p> <p><b>second</b> [22] - 7:11, 7:16, 11:10, 13:8, 13:10, 17:5, 19:1, 26:24, 27:23, 30:2, 36:25, 39:19, 49:16, 51:13, 52:18, 58:18, 81:3, 81:11, 86:3, 86:8, 86:9</p> <p><b>seconds</b> [1] - 73:10</p> <p><b>secretary</b> [1] - 3:21</p> <p><b>section</b> [16] - 11:10, 22:5, 22:6, 30:1, 61:17, 61:20, 61:21, 67:13, 70:18, 70:19, 70:20, 76:9</p> <p><b>sections</b> [10] - 35:12, 35:17, 35:21, 35:23, 36:20, 55:12, 70:12, 70:13, 91:23, 91:24</p> <p><b>see</b> [143] - 3:12, 3:19, 10:24, 11:3, 14:6, 14:7, 14:10, 15:21, 15:22, 15:23, 16:12, 20:6, 20:18, 22:4, 24:13, 24:19, 26:12, 33:5, 34:15, 35:20, 40:14, 40:19, 41:1, 41:3, 41:9, 41:13, 42:22, 43:6, 47:1, 47:10, 47:11, 48:14, 49:7, 49:9, 49:11, 49:12, 49:13, 50:9, 51:13, 51:16, 51:25, 52:17, 55:11, 55:13, 55:17, 55:19, 58:9, 58:20, 59:6, 59:15, 59:17, 60:5, 60:7, 60:12, 61:2, 66:15, 68:10, 69:19, 69:23, 70:4, 70:11, 70:15, 70:17, 70:21, 71:1, 71:10, 71:21, 71:23, 72:3, 72:5, 74:15, 74:25, 75:24, 76:11, 76:14,</p>			

76:19, 76:20, 76:24, 77:12, 77:23, 78:21, 78:23, 79:4, 79:21, 80:3, 80:22, 81:25, 82:4, 82:8, 82:9, 82:17, 83:5, 83:9, 83:24, 84:2, 84:4, 84:23, 84:25, 85:2, 85:20, 86:9, 86:11, 86:13, 86:24, 88:12, 89:12, 90:18, 91:14, 91:21, 91:22, 91:25, 92:8, 92:13, 92:18, 93:14, 95:5, 95:10, 95:15, 95:17, 95:20, 95:25, 96:3, 96:8, 96:10, 96:13, 98:4, 98:7, 98:20, 98:25, 99:7, 99:10, 99:14, 99:15, 99:20, 100:4, 100:18, 101:16, 101:21, 102:2  
**seem** [1] - 21:17  
**sell** [1] - 50:22  
**semi** [3] - 43:18, 51:25, 52:2  
**semi-circle** [2] - 51:25, 52:2  
**semi-circular** [1] - 43:18  
**sense** [3] - 31:23, 79:15, 85:25  
**sentence** [1] - 27:18  
**separate** [13] - 41:3, 41:14, 41:15, 46:24, 47:9, 47:22, 49:22, 56:6, 56:10, 57:17, 57:20, 58:12, 62:5  
**separately** [2] - 41:10, 41:15  
**sequence** [2] - 47:3, 85:10  
**serrated** [1] - 41:23  
**serration** [1] - 26:25  
**serrations** [3] - 26:7, 26:10, 27:2  
**serve** [1] - 101:19  
**service** [1] - 11:16  
**Set** [2] - 83:11, 84:14  
**set** [40] - 31:11, 54:1, 76:16, 76:17, 76:20, 77:1, 77:8, 77:15, 77:20, 77:23, 77:24, 78:22, 79:10, 81:10, 81:11, 81:12, 82:5, 82:6, 82:7, 82:8, 82:12, 83:11, 83:12, 87:13, 96:8, 96:9, 98:22, 99:4, 100:25, 101:1, 101:22, 101:23  
**sets** [47] - 19:21, 49:18, 66:16, 66:17, 66:18, 66:21, 75:23, 76:6, 77:7, 78:1, 79:5, 79:10, 81:24, 82:1, 82:12, 82:16, 82:19, 83:1, 83:10, 83:13, 83:21, 84:13, 87:13, 87:14, 87:15, 87:16, 87:17, 87:19, 87:25, 88:13, 88:17, 89:9, 89:22, 90:5, 91:2, 92:17, 92:18, 93:5, 93:15  
**Sets** [1] - 92:20  
**settings** [1] - 41:20

**several** [6] - 17:11, 21:13, 28:11, 32:9, 34:5, 34:13  
**shaded** [1] - 14:24  
**shaker** [1] - 46:15  
**shale** [1] - 46:14  
**shape** [22] - 9:4, 20:20, 25:16, 25:17, 25:23, 26:1, 28:4, 29:12, 29:16, 33:7, 33:25, 34:1, 37:25, 38:20, 38:23, 42:17, 56:19, 61:11, 87:20, 96:15  
**shaped** [1] - 25:21  
**sharp** [4] - 10:23, 27:2, 27:4  
**sharper** [2] - 51:11, 53:10  
**shear** [14] - 71:16, 71:22, 72:7, 72:11, 72:16, 73:11, 73:18, 74:23, 74:24, 83:25, 85:1, 97:16  
**shearing** [2] - 71:25, 100:6  
**shears** [2] - 13:11, 97:13  
**shh** [1] - 6:6  
**short** [3] - 4:19, 4:21, 77:19  
**shorter** [2] - 86:3, 90:2  
**shotwell** [1] - 34:24  
**shoulder** [2] - 61:7, 61:8  
**show** [21] - 9:12, 14:3, 20:22, 21:17, 30:2, 38:1, 39:18, 47:10, 52:21, 53:4, 55:3, 60:19, 66:22, 72:6, 80:24, 85:16, 89:8, 90:14, 91:10, 102:16  
**showed** [4] - 15:9, 43:23, 51:20, 89:5  
**showing** [30] - 9:9, 47:2, 48:3, 51:18, 54:13, 69:21, 71:22, 73:10, 78:20, 78:25, 79:19, 79:20, 80:25, 81:13, 82:12, 82:14, 82:25, 83:13, 83:19, 83:20, 84:3, 84:19, 89:9, 91:22, 92:6, 92:13, 100:24, 101:6, 101:9, 104:9  
**shown** [15] - 18:18, 50:6, 78:19, 79:8, 83:6, 84:9, 84:15, 84:21, 92:19, 92:25, 93:2, 98:11, 100:15  
**shows** [19] - 16:2, 19:22, 26:2, 30:4, 47:4, 62:1, 78:22, 79:4, 80:5, 82:16, 82:21, 83:8, 83:14, 83:17, 85:2, 88:13, 90:16, 93:1  
**shuffled** [1] - 96:23  
**sic** [1] - 37:1  
**side** [45] - 6:9, 17:23, 17:24, 17:25, 18:2, 18:5, 18:18, 18:24, 19:2, 24:10, 43:16, 49:15, 51:16, 52:16, 55:13, 60:5, 60:8, 70:24, 70:25, 78:11, 78:15, 78:18, 78:20, 80:22, 82:17, 83:10, 83:25,

84:4, 84:10, 84:12, 84:17, 84:20, 84:21, 85:1, 95:22, 97:15, 99:11, 99:12, 99:15, 99:21  
**side-cut** [4] - 84:4, 84:20, 99:15, 99:21  
**sides** [7] - 18:7, 18:21, 18:24, 19:22, 20:9, 55:12, 84:2  
**significant** [8] - 16:15, 16:18, 17:10, 17:16, 17:18, 19:4, 19:10, 61:4  
**significantly** [1] - 16:16  
**similar** [1] - 31:22  
**similarly** [2] - 61:15, 70:4  
**simple** [1] - 33:14  
**simply** [1] - 22:19  
**simulate** [2] - 26:24, 43:15  
**sin** [4] - 29:18, 29:20, 29:22, 45:18  
**singing** [1] - 68:11  
**single** [3] - 18:7, 19:5, 68:16  
**sit** [4] - 5:6, 5:17, 5:24, 44:17  
**situations** [1] - 69:3  
**six** [2] - 27:21, 66:23  
**size** [1] - 14:6  
**skill** [7] - 8:1, 21:10, 23:21, 30:25, 45:24, 56:17, 56:23  
**skilled** [2] - 54:8, 56:13  
**sleeves** [1] - 14:17  
**slice** [1] - 15:12  
**Slide** [3] - 16:13, 58:20, 101:2  
**slide** [126] - 7:16, 11:7, 12:4, 13:13, 14:2, 14:22, 15:9, 15:20, 17:25, 18:19, 19:8, 20:8, 20:12, 20:25, 22:2, 22:23, 22:24, 24:5, 24:17, 26:12, 30:7, 30:8, 30:23, 31:7, 31:8, 32:4, 32:20, 33:4, 33:16, 34:7, 34:13, 35:3, 37:1, 38:18, 38:21, 39:9, 41:1, 45:3, 46:9, 46:16, 47:10, 47:25, 48:9, 49:7, 50:2, 50:5, 51:14, 52:13, 53:8, 53:15, 53:25, 54:13, 55:7, 57:3, 58:15, 58:17, 58:22, 59:12, 60:19, 60:21, 61:15, 67:23, 68:7, 69:17, 69:18, 70:25, 71:21, 72:9, 74:4, 74:7, 74:8, 75:21, 76:8, 77:3, 77:16, 78:9, 78:14, 78:19, 79:7, 80:8, 80:19, 81:19, 82:3, 82:18, 83:7, 83:16, 84:8, 84:18, 85:13, 85:14, 87:8, 88:9, 88:10, 89:2, 90:21, 91:13, 91:14, 91:19, 92:8, 92:13, 92:25, 95:5, 95:8, 95:15, 95:16, 96:13, 98:3,

98:19, 99:7, 99:25, 100:8, 100:15, 100:23, 101:5, 101:6, 102:1, 102:6, 102:14, 103:3, 104:25, 105:7  
**slides** [8] - 7:1, 7:18, 45:2, 62:20, 74:7, 83:3, 93:23  
**slow** [2] - 8:11, 68:9  
**slower** [2] - 8:9, 94:13  
**small** [3] - 14:7, 15:15, 17:20  
**smart** [1] - 91:18  
**Smith** [1] - 60:24  
**smooth** [1] - 26:25  
**Smoothbore** [1] - 71:10  
**smoothbore** [2] - 67:14, 70:17  
**smoothing** [1] - 10:7  
**soft** [1] - 94:12  
**softer** [1] - 25:8  
**solved** [1] - 18:17  
**someone** [1] - 80:16  
**sometimes** [9] - 3:19, 11:4, 11:5, 12:24, 14:19, 14:20, 46:4, 52:22  
**somewhere** [2] - 25:5, 53:13  
**soon** [1] - 104:21  
**sorry** [10] - 23:17, 30:13, 74:5, 75:5, 89:16, 91:8, 91:16, 101:13, 102:18, 102:21  
**sort** [26] - 4:14, 11:3, 13:20, 14:2, 14:3, 14:22, 15:9, 16:1, 16:8, 16:9, 16:10, 17:23, 17:25, 46:5, 49:16, 51:21, 54:14, 69:1, 69:25, 70:7, 70:25, 71:1, 71:8, 72:3, 72:18, 99:22  
**sorts** [1] - 24:2  
**sought** [1] - 18:6  
**sounds** [1] - 27:18  
**SOUTHERN** [1] - 1:2  
**speaking** [3] - 94:11, 94:12  
**special** [2] - 34:17, 54:2  
**Specialities** [1] - 7:8  
**specialization** [1] - 63:15  
**SPECIALTIES** [1] - 1:7  
**specific** [9] - 25:16, 25:17, 27:15, 33:7, 37:25, 38:20, 38:23, 39:9, 56:18  
**specifically** [1] - 70:9  
**specification** [49] - 5:20, 9:13, 25:15, 26:2, 26:4, 29:17, 33:8, 38:1, 44:17, 45:8, 45:10, 45:12, 45:19, 45:23, 46:10, 46:16, 46:20, 47:4, 47:15, 47:24, 53:15, 53:16, 54:11, 54:22, 65:1, 65:23, 68:7, 68:14, 68:18, 68:19, 68:20, 68:22, 69:8, 69:11, 69:23, 71:14, 72:18,



<p>72:19, 88:20, 88:24, 89:16, 89:17, 90:25, 93:12, 103:20, 103:21, 104:7</p> <p><b>specifications</b> [1] - 68:3</p> <p><b>specify</b> [1] - 29:16</p> <p><b>speed</b> [1] - 27:19</p> <p><b>spend</b> [3] - 63:12, 68:2, 72:14</p> <p><b>spending</b> [1] - 70:11</p> <p><b>sphere</b> [2] - 97:1, 97:3</p> <p><b>spinning</b> [4] - 27:19, 27:22, 43:19</p> <p><b>spins</b> [1] - 24:11</p> <p><b>spiral</b> [35] - 13:25, 14:1, 14:8, 15:23, 16:1, 16:11, 18:12, 18:13, 26:15, 26:16, 27:10, 27:14, 28:24, 34:2, 35:11, 38:5, 38:14, 39:11, 39:24, 40:2, 40:17, 40:20, 53:18, 53:24, 77:9, 77:11, 77:12, 77:13</p> <p><b>spirally</b> [1] - 16:9</p> <p><b>spirals</b> [3] - 40:13, 40:14</p> <p><b>spun</b> [2] - 8:8, 8:16</p> <p><b>square</b> [1] - 60:6</p> <p><b>squeeze</b> [3] - 17:19, 17:23, 18:22</p> <p><b>Stabil</b> [73] - 7:8, 7:15, 7:19, 7:22, 8:13, 8:19, 9:3, 9:5, 11:9, 11:25, 12:6, 20:6, 20:19, 21:13, 21:24, 22:23, 23:7, 23:23, 24:18, 25:10, 26:3, 26:13, 26:15, 26:23, 27:17, 27:25, 28:10, 29:5, 29:10, 29:11, 29:25, 30:24, 31:3, 32:19, 33:11, 35:5, 35:10, 35:11, 35:19, 36:2, 36:9, 36:19, 37:17, 39:23, 40:13, 41:13, 42:14, 42:21, 42:22, 43:25, 50:10, 50:19, 50:20, 51:15, 52:11, 52:20, 53:20, 56:11, 57:10, 58:15, 59:4, 59:10, 59:14, 64:23, 66:6, 68:4, 69:10, 70:16, 71:11, 75:17, 89:1, 95:6, 103:22</p> <p><b>STABIL</b> [1] - 1:7</p> <p><b>stabilizer</b> [14] - 11:8, 11:11, 11:18, 11:19, 11:20, 11:21, 11:23, 12:1, 22:6, 22:10, 61:20, 61:23, 67:13, 70:19</p> <p><b>stabilizers</b> [3] - 11:22, 12:2, 104:10</p> <p><b>stabilizes</b> [4] - 10:19, 11:12, 11:19, 11:23</p> <p><b>stabilizing</b> [3] - 10:7, 10:12, 10:18</p> <p><b>stand</b> [1] - 12:24</p> <p><b>standard</b> [1] - 87:12</p> <p><b>start</b> [13] - 4:19, 10:14,</p>	<p>27:20, 45:2, 45:23, 63:8, 63:22, 72:20, 94:3, 99:9, 100:9, 101:2, 102:21</p> <p><b>started</b> [3] - 18:23, 64:17, 65:19</p> <p><b>starting</b> [1] - 21:1</p> <p><b>statement</b> [7] - 54:22, 58:16, 90:6, 90:13, 90:20, 91:4, 91:11</p> <p><b>statements</b> [1] - 90:19</p> <p><b>states</b> [1] - 58:22</p> <p><b>STATES</b> [1] - 1:1</p> <p><b>steel</b> [1] - 60:3</p> <p><b>steep</b> [1] - 40:2</p> <p><b>STENOGRAPHIC</b> [1] - 1:24</p> <p><b>step</b> [1] - 17:5</p> <p><b>steps</b> [1] - 16:20</p> <p><b>stick</b> [3] - 33:11, 36:5, 36:10</p> <p><b>sticking</b> [1] - 43:9</p> <p><b>sticks</b> [2] - 51:18, 51:19</p> <p><b>still</b> [3] - 40:14, 63:4, 68:10</p> <p><b>stole</b> [1] - 45:18</p> <p><b>straight</b> [7] - 15:18, 26:6, 26:9, 26:21, 40:5, 40:7, 40:23</p> <p><b>straight-edge</b> [1] - 26:21</p> <p><b>straightening</b> [1] - 10:7</p> <p><b>straightens</b> [1] - 19:25</p> <p><b>Street</b> [1] - 1:20</p> <p><b>string</b> [12] - 12:17, 12:19, 13:2, 13:15, 13:16, 14:12, 15:21, 15:25, 17:9, 72:11, 95:14, 100:21</p> <p><b>structure</b> [19] - 11:24, 24:21, 24:23, 33:17, 58:13, 63:7, 64:14, 64:16, 66:14, 71:23, 89:19, 100:13, 102:9, 102:10, 102:25, 103:1, 103:8, 103:10, 104:2</p> <p><b>structures</b> [6] - 47:5, 47:22, 49:22, 57:17, 58:13, 62:5</p> <p><b>stuck</b> [1] - 36:14</p> <p><b>stuff</b> [1] - 14:16</p> <p><b>sub</b> [3] - 24:18, 24:25, 40:5</p> <p><b>subject</b> [1] - 54:25</p> <p><b>submit</b> [8] - 25:10, 35:7, 44:6, 88:15, 93:9, 97:25, 103:19, 105:1</p> <p><b>submitted</b> [2] - 42:12, 42:14</p> <p><b>submitting</b> [1] - 8:5</p> <p><b>subs</b> [1] - 39:19</p> <p><b>substance</b> [2] - 22:18, 43:21</p> <p><b>substances</b> [2] - 8:15, 42:17</p> <p><b>success</b> [1] - 19:11</p> <p><b>suffice</b> [1] - 89:7</p> <p><b>sufficient</b> [1] - 54:7</p> <p><b>suggesting</b> [3] - 15:5, 31:21, 42:10</p> <p><b>suggests</b> [1] - 32:3</p> <p><b>suit</b> [2] - 5:21, 6:20</p>	<p><b>Suite</b> [2] - 1:15, 1:20</p> <p><b>summarize</b> [1] - 43:25</p> <p><b>summary</b> [20] - 7:19, 8:1, 8:6, 8:13, 8:17, 8:18, 8:19, 21:14, 22:21, 22:24, 24:1, 25:5, 25:12, 27:1, 28:2, 29:5, 30:24, 31:13, 42:14, 65:14</p> <p><b>support</b> [3] - 90:24, 91:3, 91:12</p> <p><b>supported</b> [2] - 25:14, 69:11</p> <p><b>supports</b> [4] - 27:11, 41:20, 44:2, 44:4</p> <p><b>supposed</b> [5] - 7:13, 28:14, 29:15, 65:22, 94:4</p> <p><b>surface</b> [56] - 13:16, 33:6, 33:18, 40:18, 46:12, 46:14, 47:13, 48:2, 48:3, 48:4, 48:8, 51:11, 53:8, 53:19, 58:4, 58:6, 59:1, 59:3, 59:17, 59:24, 60:16, 61:18, 61:23, 71:24, 72:4, 76:2, 76:6, 77:9, 77:14, 77:22, 79:1, 81:25, 82:15, 83:5, 83:23, 85:11, 85:23, 87:20, 88:23, 89:11, 89:23, 93:17, 95:7, 95:12, 96:6, 96:17, 97:4, 97:7, 97:8, 97:10, 98:9, 98:13, 99:23, 100:19</p> <p><b>surfaces</b> [8] - 84:5, 95:18, 95:23, 96:10, 97:15, 98:6, 100:2, 100:16</p> <p><b>system</b> [1] - 20:3</p>	<p>34:20, 34:23, 36:5, 36:6, 36:7, 36:8, 36:18, 37:18, 37:20, 37:24, 38:1, 38:20, 38:25, 39:4, 39:6, 41:1, 41:5, 41:8, 41:14, 41:23, 41:24, 42:11, 42:19, 44:2, 44:3, 44:5, 44:7, 46:19, 46:23, 46:24, 47:3, 47:7, 47:8, 47:11, 47:14, 47:15, 47:21, 48:6, 48:20, 48:22, 48:24, 48:25, 49:3, 49:5, 49:10, 49:23, 49:24, 50:1, 50:4, 50:6, 50:7, 50:11, 50:13, 51:12, 51:19, 51:21, 52:14, 52:17, 52:23, 52:24, 56:1, 56:2, 56:3, 56:5, 56:9, 56:10, 56:12, 56:16, 56:21, 56:22, 56:24, 56:25, 57:10, 57:16, 57:17, 57:19, 57:21, 58:1, 58:11, 58:14, 58:19, 58:20, 59:15, 59:18, 60:1, 60:13, 61:13, 62:6, 63:14, 64:3, 64:16, 65:13, 66:12, 66:14, 66:17, 66:19, 66:20, 66:22, 70:21, 75:21, 75:23, 76:7, 76:17, 76:20, 76:22, 77:1, 77:7, 77:15, 77:20, 77:23, 78:1, 78:4, 78:6, 78:8, 78:22, 78:24, 79:1, 79:5, 79:9, 79:11, 79:22, 80:2, 80:6, 80:10, 80:12, 80:13, 80:14, 80:23, 80:24, 81:4, 81:5, 81:13, 81:18, 81:22, 81:24, 82:1, 82:7, 82:13, 82:17, 82:20, 82:25, 83:1, 83:9, 83:11, 83:12, 83:13, 83:22, 84:5, 84:9, 84:14, 84:15, 85:1, 87:13, 87:14, 87:15, 87:16, 87:17, 87:18, 87:19, 87:20, 87:21, 87:22, 87:23, 87:25, 88:14, 88:17, 88:19, 89:9, 89:23, 90:5, 90:8, 90:10, 90:11, 90:17, 91:2, 91:20, 92:6, 92:17, 92:20, 93:3, 93:4, 93:5, 93:16, 93:21, 93:23, 95:3, 95:6, 95:10, 95:17, 95:18, 95:25, 96:4, 96:5, 97:20, 97:21, 97:22, 97:25, 98:1, 98:6, 98:13, 98:14, 98:22, 98:23, 99:1, 99:2, 99:4, 99:5, 99:8, 100:1, 100:6, 100:12, 100:13, 100:14, 100:18, 100:25, 101:1, 101:10, 101:17, 101:21, 101:22, 101:23, 101:24, 102:3, 102:10, 103:2</p> <p><b>temperature</b> [1] - 3:4</p> <p><b>ten</b> [1] - 13:7</p> <p><b>tends</b> [1] - 13:18</p>
<b>T</b>			
<p><b>table</b> [1] - 43:5</p> <p><b>tactic</b> [1] - 91:18</p> <p><b>tail</b> [1] - 37:10</p> <p><b>talks</b> [10] - 34:24, 46:11, 65:25, 71:5, 75:16, 82:5, 82:21, 83:10, 86:7, 89:13</p> <p><b>tapered</b> [3] - 32:7, 32:8, 61:8</p> <p><b>technical</b> [2] - 21:7, 101:8</p> <p><b>technically</b> [1] - 73:17</p> <p><b>TECHNOLOGIES</b> [1] - 1:4</p> <p><b>Technologies</b> [1] - 7:7</p> <p><b>technology</b> [7] - 9:9, 9:21, 55:16, 63:11, 69:14, 69:15, 75:1</p> <p><b>teeth</b> [296] - 5:1, 7:11, 8:23, 9:1, 10:23, 11:5, 13:7, 13:9, 13:10, 20:5, 20:16, 20:21, 22:14, 23:2, 25:16, 25:21, 25:22, 25:23, 26:1, 26:2, 26:3, 26:10, 26:19, 27:1, 27:6, 28:5, 28:12, 29:9, 29:10, 29:12, 31:11, 31:16, 32:22, 33:1, 33:4, 33:14, 33:21, 33:24, 33:25,</p>			

<p><b>Teodorescu</b> [5] - 27:18, 27:24, 32:21, 67:1, 67:7</p> <p><b>term</b> [15] - 5:19, 7:21, 7:22, 7:24, 8:2, 31:1, 45:25, 54:9, 63:14, 67:3, 68:16, 69:5, 69:10, 100:11, 100:14</p> <p><b>terms</b> [36] - 4:22, 4:25, 5:9, 5:10, 6:11, 6:12, 7:10, 7:12, 8:22, 9:3, 9:11, 9:16, 20:4, 20:12, 20:24, 21:4, 21:9, 21:17, 23:2, 23:3, 23:6, 23:20, 23:24, 25:13, 25:15, 29:4, 29:6, 40:25, 41:14, 41:17, 41:20, 46:18, 47:23, 53:5, 55:5, 66:1</p> <p><b>terrazzo</b> [1] - 3:7</p> <p><b>test</b> [3] - 23:16, 24:3, 43:23</p> <p><b>testified</b> [2] - 27:24, 67:7</p> <p><b>testimony</b> [6] - 23:16, 67:4, 67:10, 67:17, 73:15, 103:22</p> <p><b>TEXAS</b> [1] - 1:2</p> <p><b>Texas</b> [5] - 1:7, 1:15, 1:21, 2:3, 11:16</p> <p><b>THE</b> [120] - 1:10, 1:13, 1:18, 3:3, 3:15, 3:19, 3:23, 4:2, 4:5, 4:7, 4:12, 5:11, 5:13, 5:15, 5:21, 6:6, 6:9, 6:13, 6:16, 6:23, 7:4, 8:9, 9:18, 9:23, 10:25, 11:2, 12:9, 12:11, 12:15, 15:3, 15:5, 16:2, 16:5, 17:6, 18:20, 19:15, 30:10, 30:12, 30:14, 30:16, 30:19, 30:21, 31:19, 31:25, 35:25, 36:2, 36:12, 36:14, 37:5, 37:8, 38:22, 39:1, 39:3, 39:14, 40:7, 40:9, 40:11, 41:25, 42:3, 43:7, 44:13, 44:19, 44:24, 45:1, 45:4, 48:10, 48:12, 48:15, 48:21, 50:9, 50:24, 62:12, 62:15, 63:2, 63:6, 63:15, 63:19, 64:6, 67:19, 67:23, 68:9, 72:23, 73:6, 74:1, 74:8, 74:11, 74:15, 75:3, 75:11, 75:13, 78:16, 81:20, 82:10, 88:4, 88:8, 91:7, 91:9, 91:15, 93:22, 94:4, 94:7, 94:14, 94:25, 96:19, 96:22, 97:2, 97:5, 98:15, 98:17, 101:4, 101:13, 102:17, 104:15, 104:17, 104:19, 105:2, 105:12, 105:16, 105:19, 105:23</p> <p><b>theirs</b> [7] - 5:7, 5:18, 5:25, 25:18, 29:13, 34:2, 40:20</p> <p><b>them-all</b> [1] - 3:9</p> <p><b>themselves</b> [4] - 23:24,</p>	<p>47:25, 76:2, 76:13</p> <p><b>therefore</b> [1] - 25:22</p> <p><b>therefrom</b> [3] - 49:6, 49:10, 50:4</p> <p><b>thereof</b> [4] - 46:24, 78:5, 78:6, 78:8</p> <p><b>they've</b> [6] - 22:20, 23:12, 23:25, 31:12, 50:11, 88:18</p> <p><b>third</b> [3] - 27:3, 81:12, 86:3</p> <p><b>thoroughly</b> [2] - 4:16, 45:15</p> <p><b>thousand</b> [1] - 16:25</p> <p><b>thousands</b> [2] - 12:22, 16:22</p> <p><b>three</b> [5] - 12:24, 22:3, 22:25, 35:4, 47:17</p> <p><b>threw</b> [1] - 18:13</p> <p><b>throughout</b> [1] - 90:25</p> <p><b>thunder</b> [1] - 45:18</p> <p><b>tickle</b> [1] - 22:18</p> <p><b>tied</b> [1] - 64:24</p> <p><b>today</b> [32] - 3:18, 4:1, 4:13, 4:22, 9:7, 25:10, 25:20, 62:11, 63:8, 63:23, 64:2, 65:10, 65:12, 65:15, 65:24, 67:6, 67:15, 68:17, 70:11, 71:17, 71:19, 72:25, 74:13, 75:9, 75:24, 100:11, 102:24, 103:14, 104:2, 104:12</p> <p><b>together</b> [6] - 7:6, 12:23, 19:8, 20:7, 50:12, 68:21</p> <p><b>took</b> [4] - 17:1, 51:15, 59:4, 81:7</p> <p><b>tool</b> [28] - 9:5, 9:21, 10:6, 16:15, 17:3, 17:15, 18:8, 18:18, 18:22, 18:24, 19:11, 22:5, 26:23, 35:5, 35:8, 39:23, 40:13, 47:2, 50:25, 51:1, 55:24, 60:10, 60:17, 61:5, 62:6, 92:10, 97:13</p> <p><b>tools</b> [9] - 14:17, 19:24, 34:14, 50:22, 60:18, 60:20, 71:18, 71:19</p> <p><b>tooth</b> [36] - 31:20, 31:21, 31:23, 32:2, 32:3, 41:22, 42:9, 42:10, 43:24, 49:16, 50:18, 51:3, 51:18, 51:25, 52:11, 52:17, 52:18, 52:22, 56:15, 56:18, 60:16, 61:19, 62:4, 72:2, 79:23, 80:4, 81:2, 81:3, 81:14, 95:11, 95:13, 100:19, 100:20</p> <p><b>top</b> [28] - 12:18, 22:6, 22:16, 22:25, 27:3, 52:19, 61:2, 61:11, 69:25, 70:1, 70:14, 70:18, 79:12, 79:13, 79:14, 79:15, 79:22, 80:1, 80:4, 82:7, 82:9, 82:13, 91:22, 91:25, 92:7, 95:20, 95:24, 100:17</p> <p><b>torque</b> [6] - 13:21, 14:14,</p>	<p>24:18, 39:19, 86:1, 86:4</p> <p><b>torque-sub</b> [1] - 24:18</p> <p><b>torque-subs</b> [1] - 39:19</p> <p><b>tortuous</b> [1] - 15:1</p> <p><b>totally</b> [1] - 65:21</p> <p><b>touch</b> [1] - 71:15</p> <p><b>towards</b> [2] - 100:3, 100:7</p> <p><b>track</b> [2] - 7:17, 49:25</p> <p><b>tractor</b> [1] - 40:11</p> <p><b>trade</b> [4] - 6:2, 6:11, 6:12, 6:13</p> <p><b>transcript</b> [1] - 106:8</p> <p><b>TRANSCRIPT</b> [2] - 1:10, 1:25</p> <p><b>TRANSCRIPTION</b> [1] - 1:25</p> <p><b>treatises</b> [1] - 69:1</p> <p><b>trial</b> [1] - 65:15</p> <p><b>triangles</b> [2] - 16:3, 16:11</p> <p><b>tried</b> [1] - 26:24</p> <p><b>tries</b> [6] - 15:19, 15:24, 18:10, 20:6, 41:13, 67:10</p> <p><b>trimming</b> [1] - 13:11</p> <p><b>trims</b> [1] - 14:24</p> <p><b>trip</b> [5] - 16:23, 16:24, 17:4, 51:10</p> <p><b>tripped</b> [4] - 51:5, 51:6, 53:12</p> <p><b>tripping</b> [4] - 12:22, 17:11, 53:7</p> <p><b>trips</b> [1] - 17:1</p> <p><b>trouble</b> [1] - 73:4</p> <p><b>true</b> [3] - 22:19, 60:15, 73:17</p> <p><b>try</b> [12] - 13:20, 28:11, 28:25, 29:11, 29:18, 33:5, 45:19, 45:22, 73:3, 85:14, 90:2, 94:12</p> <p><b>trying</b> [26] - 11:20, 14:20, 18:9, 25:10, 27:12, 28:16, 29:22, 31:10, 33:9, 36:18, 37:17, 37:19, 37:20, 38:5, 38:6, 39:12, 39:17, 39:24, 40:6, 40:23, 80:12, 80:24, 81:5, 81:14, 81:15, 89:3</p> <p><b>tungsten</b> [13] - 8:7, 8:14, 24:6, 24:13, 24:19, 25:3, 27:21, 32:4, 32:9, 36:11, 42:16, 52:6, 61:3</p> <p><b>tungsten-carbide</b> [13] - 8:7, 8:14, 24:6, 24:13, 24:19, 25:3, 27:21, 32:4, 32:9, 36:11, 42:16, 52:6, 61:3</p> <p><b>turn</b> [23] - 43:15, 68:25, 70:2, 70:25, 71:21, 76:8, 78:9, 83:16, 84:18, 85:8, 88:1, 93:6, 95:4, 95:8, 95:15, 96:13, 98:3, 99:7, 99:14, 99:24, 100:8, 102:1, 102:6</p> <p><b>turned</b> [4] - 13:15, 13:16, 13:25, 25:4</p> <p><b>turns</b> [5] - 13:17, 13:18, 99:17, 99:22</p>	<p><b>tutorial</b> [5] - 5:8, 5:9, 9:9, 9:15, 19:13</p> <p><b>tutorials</b> [1] - 5:18</p> <p><b>twist</b> [1] - 12:11</p> <p><b>two</b> [45] - 4:22, 5:16, 7:10, 16:19, 17:17, 18:5, 18:6, 18:17, 18:23, 19:7, 19:21, 20:4, 20:6, 21:18, 27:8, 41:3, 41:5, 41:7, 41:8, 41:19, 41:20, 45:6, 46:24, 47:5, 47:8, 47:16, 47:22, 56:1, 57:16, 70:12, 76:23, 90:1, 90:8, 91:23, 92:10, 92:22, 95:18, 96:15, 96:22, 97:1, 97:4, 97:9, 98:1</p> <p><b>two-dimensional</b> [4] - 96:15, 97:1, 97:4, 98:1</p> <p><b>type</b> [3] - 56:16, 56:25, 60:22</p> <p><b>types</b> [2] - 26:2, 26:6</p>
<b>U</b>			
<p><b>ultimately</b> [1] - 46:12</p> <p><b>under</b> [2] - 7:9, 90:18</p> <p><b>underlined</b> [2] - 58:2, 58:9</p> <p><b>understood</b> [14] - 23:20, 25:13, 29:6, 45:24, 56:4, 56:14, 56:24, 57:1, 57:18, 58:7, 59:9, 62:3, 62:4</p> <p><b>unfortunately</b> [1] - 85:14</p> <p><b>UNITED</b> [1] - 1:1</p> <p><b>University</b> [1] - 11:16</p> <p><b>unless</b> [4] - 28:8, 75:20, 86:19, 88:1</p> <p><b>unmistakable</b> [2] - 54:24, 55:2</p> <p><b>up</b> [44] - 3:8, 6:3, 12:13, 14:13, 20:22, 22:17, 25:4, 26:8, 27:19, 32:9, 38:7, 40:5, 40:7, 40:23, 46:14, 63:9, 68:10, 70:15, 70:23, 72:15, 73:3, 74:10, 76:17, 76:18, 76:20, 78:24, 80:25, 81:4, 81:13, 82:2, 82:13, 85:12, 90:1, 90:11, 91:16, 93:25, 94:2, 94:24, 96:9, 96:10, 99:6, 101:1, 101:23, 105:19</p> <p><b>upper</b> [9] - 8:7, 8:14, 12:1, 29:25, 35:11, 36:20, 36:23, 92:3, 92:5</p> <p><b>US</b> [1] - 34:13</p>			
<b>V</b>			
<p><b>various</b> [3] - 50:3, 52:14, 54:14</p> <p><b>versa</b> [2] - 19:2, 19:10</p> <p><b>version</b> [1] - 69:19</p> <p><b>versus</b> [4] - 19:5, 50:6,</p>			

61:13, 71:16 <b>vertical</b> <sup>[2]</sup> - 17:19, 51:18 <b>vice</b> <sup>[2]</sup> - 19:2, 19:10 <b>video</b> <sup>[7]</sup> - 25:5, 72:13, 72:24, 73:9, 73:23, 74:6, 104:3 <b>Video</b> <sup>[1]</sup> - 74:18 <b>videos</b> <sup>[1]</sup> - 73:4 <b>view</b> <sup>[18]</sup> - 57:4, 57:23, 57:24, 60:10, 71:13, 78:11, 78:15, 78:18, 78:20, 79:12, 79:16, 80:22, 82:13, 82:17, 83:10, 91:22, 92:7 <b>viewed</b> <sup>[1]</sup> - 66:2 <b>views</b> <sup>[1]</sup> - 3:4 <b>violates</b> <sup>[5]</sup> - 28:10, 37:23, 38:16, 40:21 <b>vision</b> <sup>[1]</sup> - 42:21 <b>VS</b> <sup>[1]</sup> - 1:6	<b>wood</b> <sup>[1]</sup> - 43:13 <b>word</b> <sup>[13]</sup> - 32:10, 33:8, 38:6, 39:12, 40:23, 45:22, 47:2, 47:4, 59:7, 77:2, 79:6, 80:7, 90:21 <b>words</b> <sup>[16]</sup> - 21:2, 23:7, 25:14, 41:8, 46:3, 46:8, 46:20, 47:10, 47:12, 47:17, 53:23, 54:5, 54:10, 59:5, 76:12, 78:3 <b>worn</b> <sup>[1]</sup> - 60:3 <b>worry</b> <sup>[1]</sup> - 62:23 <b>worse</b> <sup>[2]</sup> - 28:16, 29:21 <b>wrist</b> <sup>[1]</sup> - 13:21 <b>write</b> <sup>[1]</sup> - 83:19 <b>written</b> <sup>[5]</sup> - 29:7, 29:19, 29:23, 45:10, 54:3
<b>W</b>	<b>Y</b>
<b>wagging</b> <sup>[1]</sup> - 37:10 <b>wait</b> <sup>[6]</sup> - 30:18, 35:25, 48:10, 78:16 <b>walk</b> <sup>[3]</sup> - 13:19, 69:10, 72:18 <b>walking</b> <sup>[2]</sup> - 15:14, 68:2 <b>walks</b> <sup>[4]</sup> - 13:21, 13:23, 13:24, 15:10 <b>wall</b> <sup>[2]</sup> - 32:14, 60:23 <b>wants</b> <sup>[4]</sup> - 12:1, 18:8, 29:11, 80:16 <b>warm</b> <sup>[2]</sup> - 3:5, 3:6 <b>water</b> <sup>[1]</sup> - 64:6 <b>ways</b> <sup>[5]</sup> - 5:16, 26:11, 28:5, 28:11, 87:10 <b>wear</b> <sup>[3]</sup> - 59:23, 59:24, 60:17 <b>Webster's</b> <sup>[1]</sup> - 10:1 <b>weight</b> <sup>[1]</sup> - 72:11 <b>welcome</b> <sup>[1]</sup> - 105:22 <b>welded</b> <sup>[1]</sup> - 34:20 <b>Wesley</b> <sup>[1]</sup> - 1:13 <b>whatsoever</b> <sup>[1]</sup> - 25:25 <b>whereas</b> <sup>[2]</sup> - 46:18, 105:17 <b>Wherein</b> <sup>[1]</sup> - 49:4 <b>whichever</b> <sup>[1]</sup> - 5:4 <b>whole</b> <sup>[5]</sup> - 53:13, 81:1, 81:6, 94:21, 105:24 <b>WiFi</b> <sup>[1]</sup> - 73:4 <b>Williams</b> <sup>[6]</sup> - 55:6, 55:22, 55:25, 56:15, 57:5, 57:25 <b>Williams'</b> <sup>[3]</sup> - 55:10, 55:18, 56:20 <b>window</b> <sup>[5]</sup> - 14:7, 14:9, 14:13, 15:16, 15:17 <b>witness</b> <sup>[1]</sup> - 67:7 <b>witnesses</b> <sup>[1]</sup> - 103:23 <b>wobbling</b> <sup>[1]</sup> - 10:15 <b>wonderful</b> <sup>[1]</sup> - 4:3	<b>year</b> <sup>[1]</sup> - 3:17 <b>years</b> <sup>[5]</sup> - 22:3, 62:2, 64:19, 94:19, 105:23 <b>yelled</b> <sup>[1]</sup> - 94:10 <b>yellow</b> <sup>[1]</sup> - 96:9 <b>you-all</b> <sup>[1]</sup> - 3:9 <b>young</b> <sup>[1]</sup> - 94:11
	<b>Z</b>
	<b>zoom</b> <sup>[1]</sup> - 69:13